N61165.AR.003736
CNC CHARLESTON
5090.3a

FRIABLE AND DAMAGED FRIABLE ASBESTOS-CONTAINING MATERIALS SURVEY FOR BUILDINGS 758, 759, 760, 762 AND 763 CNC CHARLESTON SC

8/1/2000

CAPE ENVIRONMENTAL MANAGEMENT, INC.

FRIABLE AND DAMAGED FRIABLE ASBESTOS-CONTAINING MATERIALS SURVEY FOR BUILDINGS 758, 759, 760, 762, AND 763 AT THE CHARLESTON NAVAL SHIPYARD CHARLESTON, SOUTH CAROLINA

Contract # N62467-00-D-0341
Delivery Order # 0008
CAPE Project #00009.006.000

Prepared For:

2155 Eagle Drive, PO Box 190010
North Charleston, SC 29419-9010

Prepared By:

CAPE
ENVIRONMENTAL
MANAGEMENT
INC
Nationally Recognized by Clients for Superior Service

2302 Parklake Drive, NE, Suite 200
Atlanta, GA 30345-2907
(770) 908-7200

Contacts
Hugo Rios, A.I.A., Program Manager
Mike Spradling, Project Manager

AUGUST 2000

Friable and Damaged Friable Asbestos-Containing Materials Survey for Buildings 758, 759, 760, 762, and 763 at Charleston Naval Shipyard Charleston, South Carolina

Contents

EXECUTIVE SUMMARY

CAPE Environmental Management Inc (CAPE) was retained by Southern Division, Naval Facilities Engineering Command (Southern Division NAVFACENGCOM) to prepare a detailed survey, inventory, and assessment of friable and damaged friable asbestos-containing material (ACM) of buildings 758, 759, 760, 762, and 763 at the Charleston Naval Shipyard, Charleston, South Carolina. The field investigation was conducted on May 17, 2000, May 18, 2000, and July 13, 2000 under contract number N62467-00-D-0345 and delivery order number 0008. CAPE personnel, who maintain applicable Environmental Protection Agency/Asbestos Hazard Emergency Response Act (EPA/AHERA) accreditations, conducted the asbestos survey.

The purpose of the survey was to provide an inventory of friable ACM in each building and assess the condition for compliance with the Department of Defense (DoD) policy on asbestos at Base Realignment and Closure (BRAC) properties.

Damaged friable ACMs identified in this survey are listed below.

Building 758

- Pipe insulation on domestic water lines, magnesia-type

Building 759

- Pipe insulation on domestic water and steam lines, magnesia-type
- Transite-type panel
- Boiler gaskets
- Debris

Building 760

- Plaster ceiling
- Pipe insulation on domestic water lines, magnesia-type
- Pipe fitting insulation on magnesia-type insulated piping
- Contaminated soil

Building 762

- Contaminated soil

Building 763

- Contaminated soil

INTRODUCTION

Cape Environmental Management Inc (CAPE) was retained by Southern Division, Naval Facilities Engineering Command (Southern Division NAVFACENGCOM) to prepare a detailed survey, inventory and assessment of friable and damaged friable asbestos-containing material (ACM) located in five buildings at the Charleston Naval Shipyard, Charleston, SC. The survey was performed by EPA/AHERA accredited asbestos building inspectors David Bratley (EPA/AHERA Accreditation Certificate #6419, South Carolina Accreditation Certificate #22840), Michael Black (EPA/AHERA Accreditation Certificate #2643, South Carolina Accreditation Certificate #23059), and Brian Downes (EPA/AHERA Accreditation Certificate #6624, South Carolina Accreditation Certificate #22770). The field investigation was conducted on May 17, 2000, May 18, 2000, and July 13, 2000 under contract number N62467-00-D-0345 and delivery order number 0008.

The purpose of this survey was to update the existing inventory of friable ACM and to re-assess the condition of ACM (homogenous areas) for compliance with the DoD Policy on Asbestos at Base Realignment and Closure (BRAC) Properties.

The asbestos field investigation criteria established for this project consisted of inspecting interior and exterior areas of each facility for suspect-friable ACM and collecting bulk samples in accordance with the criteria outlined in 40 CFR Part 763, *Asbestos Hazard Emergency Response Act* (AHERA).

Once suspect-ACM were identified, homogeneous sampling areas (areas that are uniform in color, texture, construction/application date, and general appearance) were delineated. Each homogeneous sampling area was then assigned a unique homogenous area (HA) number and the appropriate number of bulk samples were collected from each HA.

Suspect-ACM samples were analyzed by Polarized Light Microscopy (PLM) using dispersion staining techniques in accordance with U.S EPA/600/R-93/116 Method of July 1993. CAPE's laboratory located in Atlanta, GA (NVLAP # 102111) served as the primary laboratory for PLM analysis. In accordance with EPA's 1994 clarification for analysis of multi-layered systems, suspect materials are treated as asbestos containing if one or more layers of the material is determined to contain greater than 1% asbestos. Materials Analytical Services, Inc. [NVLAP Lab Code 101235] located in Suwanee, Georgia performed quality control analysis. See the Appendix for copies of primary and quality control laboratory analytical results.

In accordance with the Navy's scope of work, friable ACM determined to contain asbestos in quantities of less than 1% (by initial PLM analysis) were verified by PLM point counting as a means to quantitatively confirm whether asbestos content was above or below 1%. Results subsequently determined by PLM point counting to contain less than 1% asbestos were considered to be non asbestos containing. CAPE's laboratory located in Atlanta, GA (NVLAP # 102111) served as the laboratory for PLM point count analysis.

Survey Findings

FACILITY NO.: 758
DESCRIPTION: Officer's Quarters (vacant)

Building 758 is a two-level structure totaling 3,500 square feet plus two attic spaces. The building was constructed in 1942.

PART 1 – FRIABLE ACM INVENTORY:

CAPE conducted a survey and inventory of friable ACM at this facility in July 2000. This survey was conducted to provide an inventory of friable ACM and to assess the condition of ACM (homogenous areas) for compliance with the DoD Policy on Asbestos at Base Realignment and Closure (BRAC) Properties. The following table provides an inventory of friable ACM identified:

Friable ACM Inventory

HA#	Material Description	HA Location	Material Type	Approximate HA Quantity	Condition Assessment
2	Pipe insulation on domestic water lines, magnesia-type	Attic 1 and Attic 2	Thermal system insulation	580 linear feet	Damaged

In accordance with federal regulations, non-friable suspect ACM which were not inventoried or sampled as part of the scope of work for this project (as well as any "assumed" or "presumed" asbestos-containing materials) should be treated as asbestos-containing material and properly managed until testing is performed to demonstrate no asbestos is present.

FACILITY NO.: 758

PART 2 – DAMAGED FRIABLE ACM:

The following table provides a site-specific inventory of damaged and/or significantly damaged friable ACM. In accordance with DoD policy on asbestos at BRAC properties, CAPE recommends the Navy retain a licensed asbestos consultant/abatement contractor to complete the recommended abatement response actions outlined in the table below.

Damaged Friable ACM

HA#	Material Description	Damage Location	Approximate Damaged Quantity	Recommended Abatement Response Action
2	Pipe insulation on domestic water lines, magnesia-type	Attic 1 and Attic 2	45 linear feet	Repair

Non-Damaged/Friable ACM:

DoD policy allows transfer of properties "as is" if they contain ACM which is not in damaged/friable condition. Therefore, any friable ACM identified in this report as being in good condition, and which remain in good condition, is not required to be remediated prior to transfer. All friable ACM in good condition should be properly managed until the facility is transferred through the BRAC process.

FACILITY NO.: 758

PART 3 – BULK SAMPLE ANALYSIS RESULTS:

Samples collected by CAPE were analyzed by Polarized Light Microscopy (PLM) in accordance with EPA Method EPA/600/R-93/116 of July 1993. CAPE's laboratory in Atlanta, Georgia (NVLAP Lab Code 10211), served as the primary analytical laboratory. The table below provides a summary of analysis results for bulk samples collected from suspect friable ACM by CAPE. In accordance with federal and state regulations, a suspect material is considered to be ACM if it is determined to contain more than 1% asbestos by PLM (or is assumed to contain more than 1% asbestos).

Summary of Suspect Friable ACM

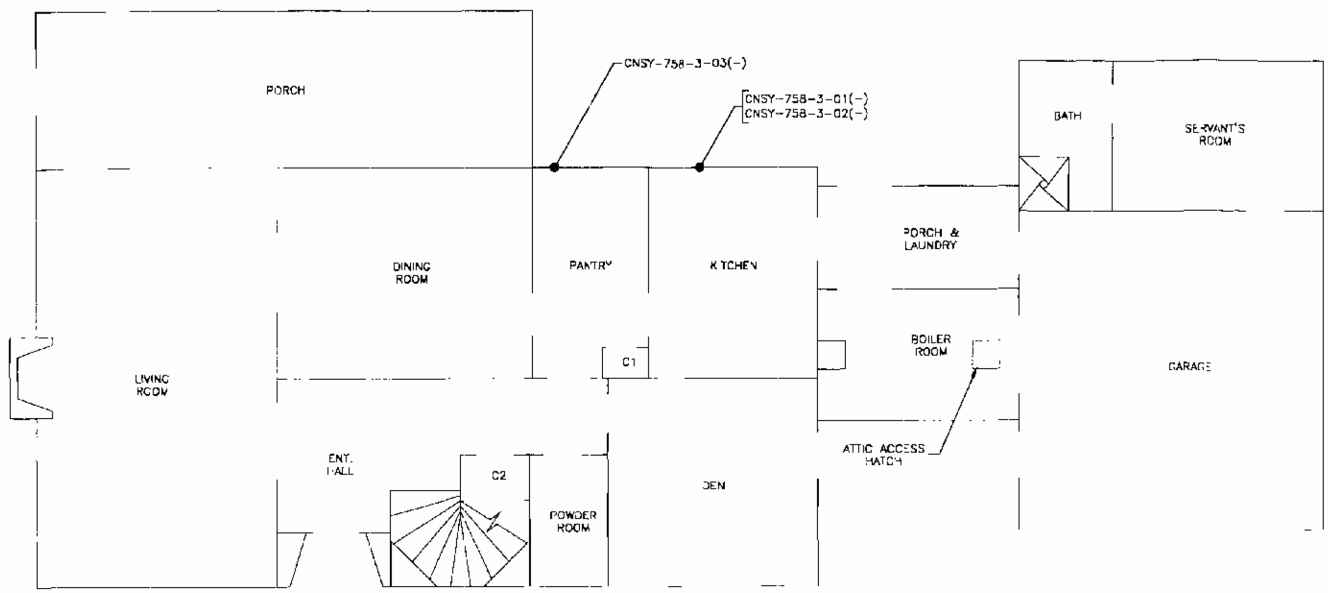
HA#	Material Description	Homogeneous Area Location	Sample I.D.	Analysis Result	ACM (YES/NO)
1	Damaged plaster ceiling	Bath 2	CNSY-758-1-01	NAD	NO
			CNSY-758-1-02	NAD	
			CNSY-758-1-03	NAD	
2	Pipe insulation on domestic water lines, magnesia-type	Attic 1 and Attic 2	CNSY-758-2-01	15% CHR, 15% AMO	YES
			CNSY-758-2-02	Not Analyzed	
			CNSY-758-2-03	Not Analyzed	
3	Window putty	Exterior	CNSY-758-3-01	NAD	NO
			CNSY-758-3-02	NAD	
			CNSY-758-3-03	NAD	

EPA's PLM test method requires individual strata layers within a multi-layered material to be analyzed separately and separate analysis results to be reported for each layer. Multi-layered materials are, therefore, considered to be ACM if one or more layer(s) contain greater than 1% asbestos. Specific examples of multi-layered materials include plaster and stucco systems, and materials "added" to wallboard or other base materials (e.g., sprayed-on materials, skim coats, paints, ceiling or wall texture, etc.).

NAD = No Asbestos Detected
CHR = Chrysotile Asbestos
PC = Point Count analysis performed
AMO = Amosite Asbestos
CRO = Crocidolite Asbestos

Part 4

Floor Plan(s) Indicating Bulk Sample Locations and Extent of Identified Friable ACM (Including Damage Locations)



BUILDING 758 – FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

TYPICAL CAPE SAMPLE I.D. No.

CNSY- 758-1-01(+)

- POSITIVE (+) OR NEGATIVE (-) FOR THE PRESENCE OF ASBESTOS OR (NA) FOR NOT ANALYZED
- SAMPLE I.D. No.
- HOMOGENEOUS AREA No.
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD

GRAPHIC SCALE

0 8' 16' 24'

SCALE: 1/8" = 1'-0"

SYMBOLS

●—— LOCATION OF SAMPLES COLLECTED

(-) NON-ASBESTOS CONTAINING MATERIAL

NOTE

NO FRIABLE ASBESTOS-CONTAINING MATERIALS WERE IDENTIFIED ON THIS FLOOR.

CAPE ENVIRONMENTAL MANAGEMENT INC	
ATLANTA	GEORGIA
DSGN	DR	CHK
SUPV S. BRYANT	CH ENGR C. RIOS
SUBMITTED BY (FIRM MEMBER-TITLE)	DATE
EIC	BR HD
FPE	DIR

REV. DESCRIPTION | PREP BY | DATE APPRVD

APPROVED | DATE | OFFICER IN CHARGE

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND

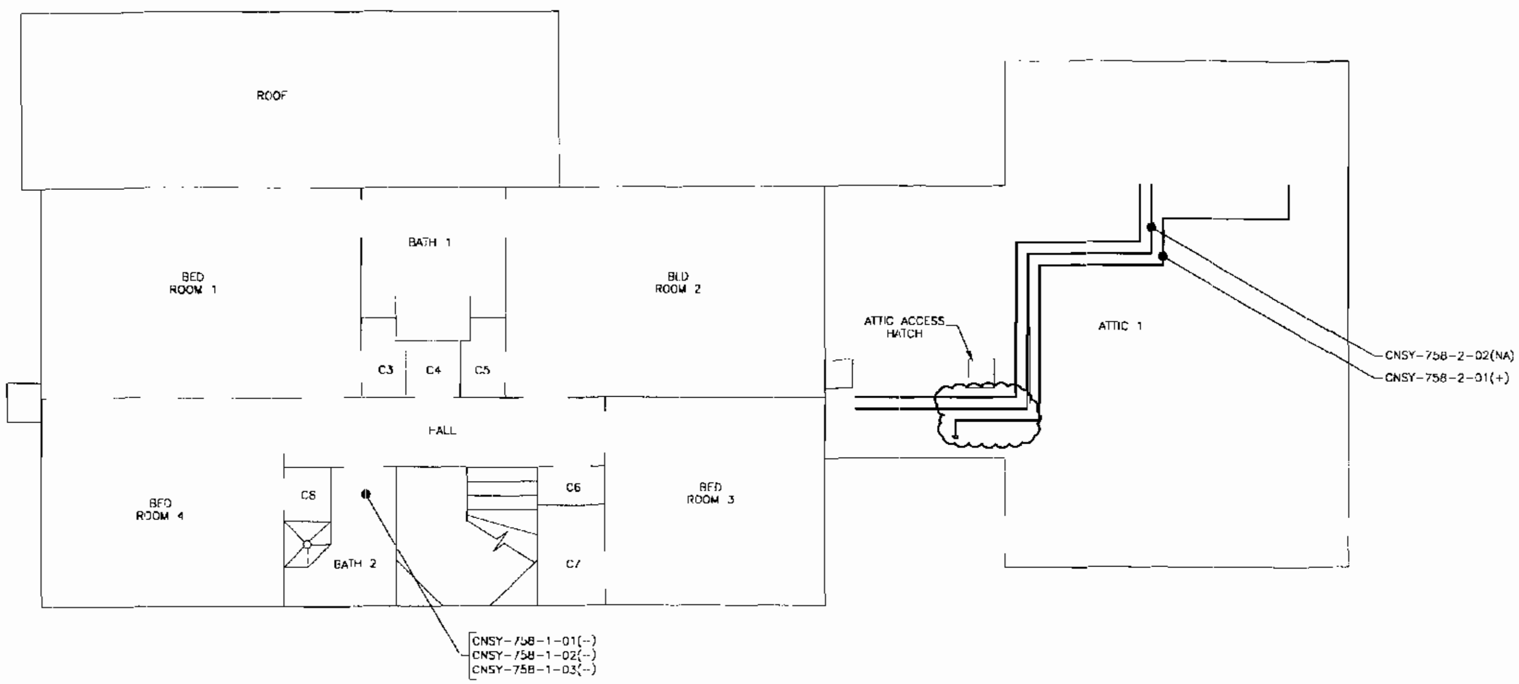
SOUTHERN DIVISION
CHARLESTON, S.C.

A-E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 758 – FIRST FLOOR PLAN

APPROVED | DATE | EFD FOR COMMANDER, NAVFAC

SEAL AREA

CODE I.D.No.	SIZE B
EFD DRAWING NO.	
STA. PROJ. NO.	
CAPE PRJ. No.	00009.006.000
SPEC NO.	N/A
CONSTRN. CNTR. NO.	N62467-00-D-0341
NAVFAC DRAWING NO.	N/A
SHEET 1	OF 2
758ASD-1	



BUILDING 758 – SECOND FLOOR AND ATTIC 1 PLAN

SCALE: 1/8" = 1' 0"

NORTH

TYPICAL CAPE SAMPLE I.D. No.

CNSY-758-1-01(+)

- POSITIVE (+) OR NEGATIVE (-) FOR THE PRESENCE OF ASBESTOS OR (NA) FOR NOT ANALYZED
- SAMPLE I.D. No.
- HOMOGENEOUS AREA No.
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD

LEGEND

ASBESTOS-CONTAINING MATERIALS (ACM) IDENTIFIED - THERMAL SYSTEMS INSULATION (T.S.I.)

- PIPING INSULATION
- PIPE TURNS DOWN
- LOCATION OF DAMAGED FRIABLE ASBESTOS-CONTAINING MATERIAL

SYMBOLS

- LOCATION OF SAMPLES COLLECTED
- (+) ASBESTOS-CONTAINING MATERIAL
- (-) NON-ASBESTOS CONTAINING MATERIAL
- (NA) INDICATES SAMPLE WAS NOT ANALYZED SINCE AT LEAST ONE SAMPLE RESULT OF THE SAME HOMOGENEOUS AREA (HA) IS POSITIVE. (SAMPLES FOR EACH HA WERE ANALYZED UNTIL POSITIVE).

GRAPHIC SCALE

0 8' 16' 24'

SCALE: 1/8" = 1'-0"

CAPE ENVIRONMENTAL MANAGEMENT INC. ATLANTA, GEORGIA

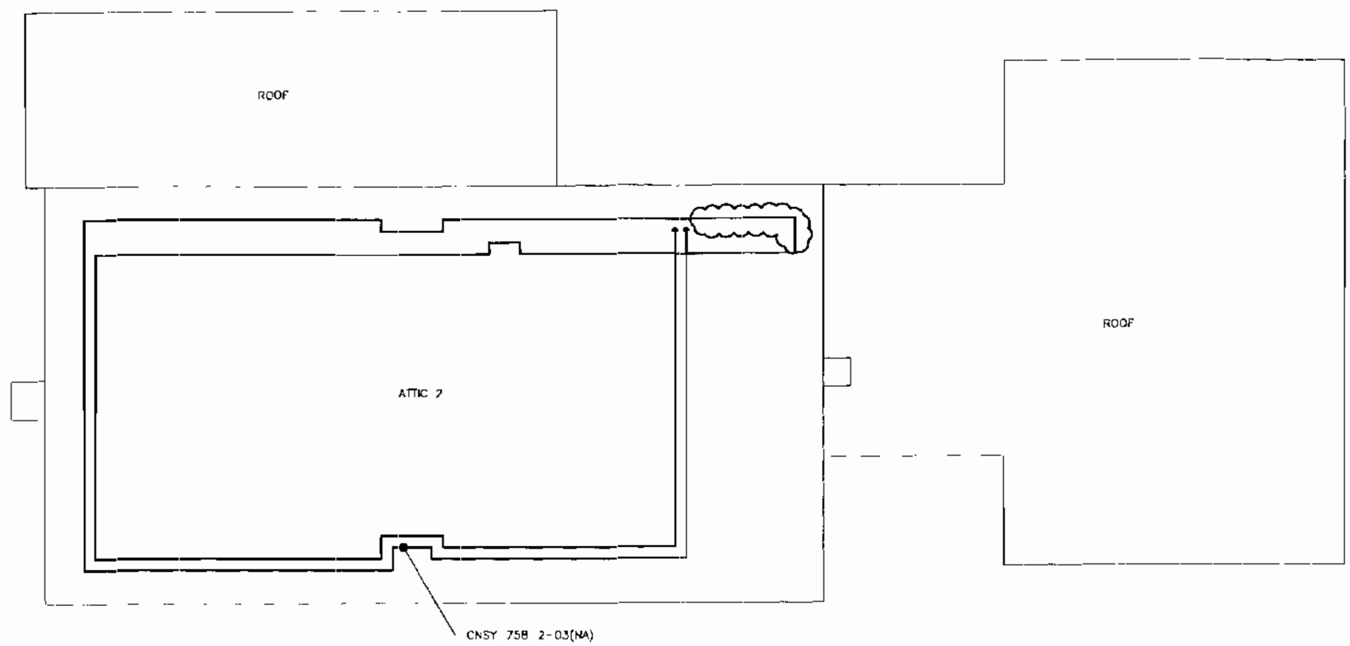
DEPARTMENT OF THE NAVY
SOUTHERN DIVISION CHARLESTON, S.C.
NAVAL FACILITIES ENGINEERING COMMAND

A-E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 758 - SECOND FLOOR AND ATTIC 1 PLAN

SPEC NO. N/A

NAVFAC DRAWING NO. N/A

758AS8-2



BUILDING 758 – ATTIC 2 PLAN

SCALE: 1/8" = 1'-0"

NORTH

TYPICAL CAPE SAMPLE I.D. No.

CNSY 758-1-01(+)

- POSITIVE (+) OR NEGATIVE (-) FOR THE PRESENCE OF ASBESTOS OR (NA) FOR NOT ANALYZED
- SAMPLE ID No.
- HOMOGENEOUS AREA No.
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD

LEGEND

ASBESTOS-CONTAINING MATERIALS (ACM) IDENTIFIED – THERMAL SYSTEMS INSULATION (T.S.I.)

- PIPING INSULATION
- PIPE TURNS DOWN
- LOCATION OF DAMAGED FRIABLE ASBESTOS-CONTAINING MATERIAL.

SYMBOLS

- LOCATION OF SAMPLES COLLECTED
- (NA) INDICATES SAMPLE WAS NOT ANALYZED SINCE AT LEAST ONE SAMPLE RESULT OF THE SAME HOMOGENEOUS AREA (HA) IS POSITIVE. (SAMPLES FOR EACH HA WERE ANALYZED UNTIL POSITIVE).

GRAPHIC SCALE

0 8' 16' 24'

SCALE: 1/8" = 1'-0"

CAPE ENVIRONMENTAL MANAGEMENT INC. ATLANTA GEORGIA	
DSGN	DR C.RIOS CHK
SUPV S. BRYANT	CH ENGR
SUBMITTED BY (FIRM MEMBER-TITLE)	DATE
EIC	BR HD
FPE	DIR

REV. DESCRIPTION | PREP BY | DATE APPRVD

APPROVED | DATE | OFFICER IN CHARGE

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND

SOUTHERN DIVISION
CHARLESTON, S.C.

A-E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 758 - ATTIC 2 PLAN

APPROVED | DATE | EIC FOR COMMANDER, NAVFAC

SEAL AREA

CODE ID.No.	SIZE B
FED DRAWING NO.	
STA. PROJ. NO.	
CAPE PRJ. No. 00009.006.000	
SPEC. NO. N/A	
CONSTRN. CNTRL NO. N62467-00-D-0341	
NAVFAC DRAWING NO. N/A	
SHEET 3	OF 3
758ASB-3	

FACILITY NO.: 759
DESCRIPTION: Officer's Quarters (vacant)

Building 759 is a two-level structure totaling 3,600 square feet plus an attic space. The building was constructed in 1942.

PART 1 – FRIABLE ACM INVENTORY:

CAPE conducted a survey and inventory of friable ACM at this facility in May 2000. This survey was conducted to provide an inventory of friable ACM and to assess the condition of ACM (homogenous areas) for compliance with the DoD Policy on Asbestos at Base Realignment and Closure (BRAC) Properties. The following table provides an inventory of friable ACM identified:

Friable ACM Inventory

HA#	Material Description	HA Location	Material Type	Approximate HA Quantity	Condition Assessment
3	Pipe insulation on domestic water and steam lines, magnesia-type	Plenum	Thermal system insulation	50 linear feet	Significantly damaged
4	Damaged transite-type panel	Plenum	Miscellaneous	5 square feet	Damaged
5	Damaged boiler gaskets	Mechanical Room	Thermal system insulation	3 each	Significantly damaged
6	Debris	Plenum	Thermal system insulation	60 square feet	Significantly damaged

In accordance with federal regulations, non-friable suspect ACM which were not inventoried or sampled as part of the scope of work for this project (as well as any "assumed" or "presumed" asbestos-containing materials) should be treated as asbestos-containing material and properly managed until testing is performed to demonstrate no asbestos is present.

FACILITY NO.: 759

PART 2 – DAMAGED FRIABLE ACM:

The following table provides a site-specific inventory of damaged and/or significantly damaged friable ACM. In accordance with DoD policy on asbestos at BRAC properties, CAPE recommends the Navy retain a licensed asbestos consultant/abatement contractor to complete the recommended abatement response actions outlined in the table below.

Damaged Friable ACM

HA#	Material Description	Damage Location	Approximate Damaged Quantity	Recommended Abatement Response Action
3	Pipe insulation on domestic water and steam lines, magnesia-type	Plenum	50 linear feet	Remove and replace
4	Transite-type panel	Plenum	5 square feet	Remove
5	Boiler gaskets	Mechanical Room	3 each	Remove and replace
6	Debris	Plenum	60 square feet	Remove

Non-Damaged/Friable ACM:

DoD policy allows transfer of properties "as is" if they contain ACM which is not in damaged/friable condition. Therefore, any friable ACM identified in this report as being in good condition, and which remain in good condition, is not required to be remediated prior to transfer. All friable ACM in good condition should be properly managed until the facility is transferred through the BRAC process.

FACILITY NO.: 759

PART 3 – BULK SAMPLE ANALYSIS RESULTS:

Samples collected by CAPE were analyzed by Polarized Light Microscopy (PLM) in accordance with EPA Method EPA/600/R-93/116 of July 1993. CAPE's laboratory in Atlanta, Georgia (NVLAP Lab Code 10211), served as the primary analytical laboratory. The table below provides a summary of analysis results for bulk samples collected from suspect friable ACM by CAPE. In accordance with federal and state regulations, a suspect material is considered to be ACM if it is determined to contain more than 1% asbestos by PLM (or is assumed to contain more than 1% asbestos).

Summary of Suspect Friable ACM

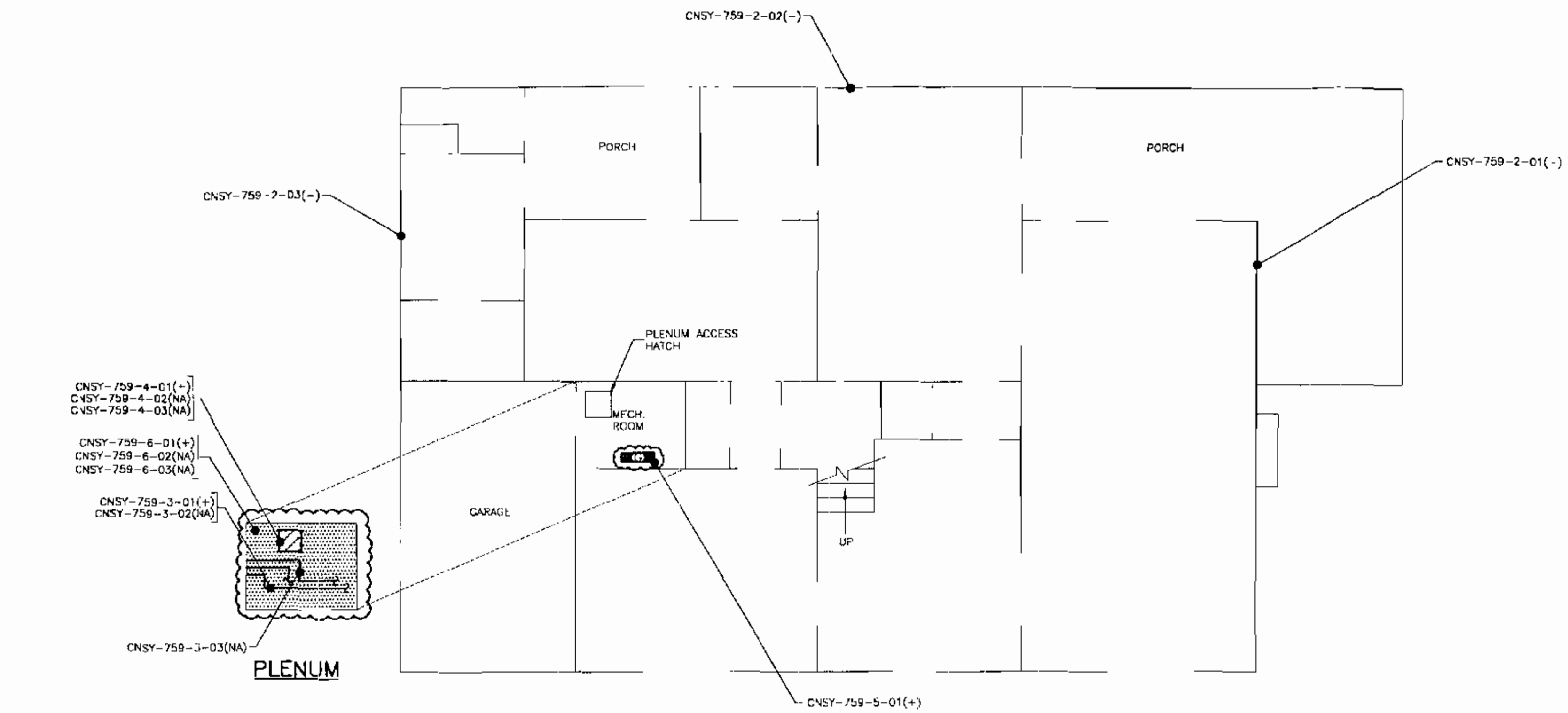
HA#	Material Description	Homogeneous Area Location	Sample I.D.	Analysis Result	ACM (YES/NO)
1	Spray-applied insulation	Attic	CNSY-759-1-01	NAD	NO
			CNSY-759-1-02	NAD	
			CNSY-759-1-03	NAD	
2	Damaged window putty	Exterior	QC-CNSY-759-2-01	NAD	NO
			CNSY-759-2-01	NAD	
			CNSY-759-2-02	NAD	
			CNSY-759-2-03	NAD	
3	Pipe insulation on domestic water and steam lines, magnesia-type	Plenum	CNSY-759-3-01	10% CHR, 10% AMO	**YES**
			CNSY-759-3-02	Not Analyzed	
			CNSY-759-3-03	Not Analyzed	
4	Damaged transite-type panel	Plenum	CNSY-759-4-01	35% CHR	**YES**
			CNSY-759-4-02	Not Analyzed	
			CNSY-759-4-03	Not Analyzed	
5	Damaged gasket material	Mechanical Room	CNSY-759-5-01	80% CHR	**YES**
6	Debris	Plenum	CNSY-759-6-01	20% CHR, 10% AMO	**YES**
			CNSY-759-6-02	Not Analyzed	
			CNSY-759-6-03	Not Analyzed	

EPA's PLM test method requires individual strata layers within a multi-layered material to be analyzed separately and separate analysis results to be reported for each layer. Multi-layered materials are, therefore, considered to be ACM if one or more layer(s) contain greater than 1% asbestos. Specific examples of multi-layered materials include plaster and stucco systems, and materials "added" to wallboard or other base materials (e.g., sprayed-on materials, skim coats, paints, ceiling or wall texture, etc.).

NAD = No Asbestos Detected
CHR = Chrysotile Asbestos
PC = Point Count analysis performed
AMO = Amosite Asbestos
CRO = Crocidolite Asbestos

Part 4

Floor Plan(s) Indicating Bulk Sample Locations and Extent of Identified Friable ACM (Including Damage Locations)



BUILDING 759 – FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

NORTH

LEGEND

FRIABLE ASBESTOS-CONTAINING MATERIALS (ACM) IDENTIFIED

- DEBRIS
- BOILER GASKETS
- TRANSITE TYPE PANELS
- PIPE INSULATION
- PIPING INSULATION ENDS, PIPE CONTINUES
- LOCATION OF DAMAGED FRIABLE ASBESTOS-CONTAINING MATERIAL

SYMBOLS

- LOCATION OF SAMPLES COLLECTED
- (+) ASBESTOS-CONTAINING MATERIAL
- (-) NON-ASBESTOS-CONTAINING MATERIAL
- (NA) INDICATES SAMPLE WAS NOT ANALYZED SINCE AT LEAST ONE SAMPLE RESULT OF THE SAME HOMOGENEOUS AREA (HA) IS POSITIVE. (SAMPLES FOR EACH HA WERE ANALYZED UNTIL POSITIVE).

TYPICAL CAFE SAMPLE I.D. No.

CNSY- 759-1-01(+)

- POSITIVE (+) OR NEGATIVE (-) FOR THE PRESENCE OF ASBESTOS OR (NA) FOR NOT ANALYZED
- SAMPLE I.D. No.
- HOMOGENEOUS AREA No.
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD

GRAPHIC SCALE

0 8' 16' 24'

SCALE: 1/8" = 1'-0"

CAPE ENVIRONMENTAL MANAGEMENT INC. ATLANTA GEORGIA

DSGN DR C.RIOS CHK

SUPV S.BRYANT CF ENGR

SUBMITTED BY (FIRM MEMBER-TITLE) DATE

FIC BR HD

EPE DIR

OFFICER IN CHARGE

DATE APPR'VD | PREP BY | REV. DESCRIPTION | APPROVED | DATE

DEPARTMENT OF THE NAVY SOUTHERN DIVISION CHARLESTON, S.C. NAVAL FACILITIES ENGINEERING COMMAND

A-E SERVICES FOR ASBESTOS SURVEY AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC

BUILDING 759 – FIRST FLOOR PLAN

EFD FOR COMMANDER, NAVFAC

SCL AREA

CODE ID.No. SIZE D

FED. DRAWING NO.

STA. PROJ. NO.

CAPE PRJ. No. 00000.000.000

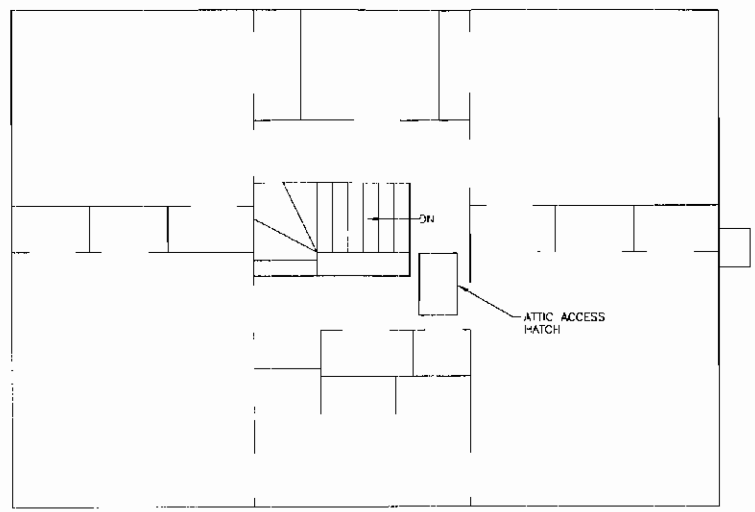
SPEC. NO. N/A

CONSTR. CNTR. NO. N62467-00-D-0341

NAVFAC DRAWING NO. N/A

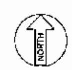
SHEET 1 OF 2

759ASB-1



BUILDING 759 – SECOND FLOOR PLAN

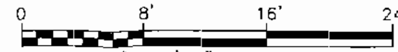
SCALE: 1/8" = 1'-0"



NOTE

NO FRIABLE ASBESTOS-CONTAINING MATERIALS WERE IDENTIFIED ON THIS FLOOR.

GRAPHIC SCALE



SCALE: 1/8" = 1'-0"

CAPE ENVIRONMENTAL MANAGEMENT INC
ATLANTA GEORGIA
DSGN | DR C.RIOS | CHK
SUPV S. BRYANT | CH ENGR
SUBMITTED BY (FIRM MEMBER-TITLE) | DATE
EIC | BR HD
EFE | DR

REV | DESCRIPTION | PREP BY | DATE APPRVD

APPROVED | DATE | OFFICER IN CHARGE

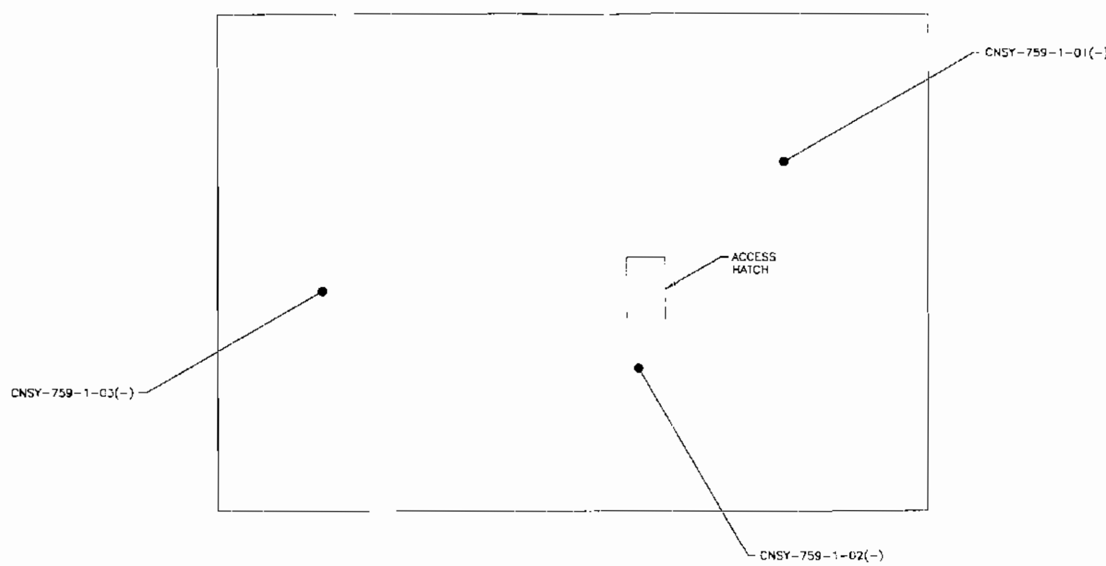
DEPARTMENT OF THE NAVY | NAVAL FACILITIES ENGINEERING COMMAND
SOUTHERN DIVISION
CHARLESTON, S.C.

A–E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 759 – SECOND FLOOR PLAN

APPROVED | DATE | EFD FOR COMMANDER, NAVFAC

SEAL AREA

CODE ID No | SIZE B
FED DRAWING NO
STA PROJ NO.
CAPE PRJ. No. 00008 005 000
SPEC. NO. N/A
CONSTRN CNTR NO
N62467-00-D-0341
NAVFAC DRAWING NO
N/A
SHEET 2 OF 3
759ASB-2



BUILDING 759 – ATTIC PLAN

SCALE: 1/8" = 1'-0"

NORTH

TYPICAL CAPE SAMPLE I.D. No.

CNSY- 759-1-01(+)

- POSITIVE (+) OR NEGATIVE (-) FOR THE PRESENCE OF ASBESTOS OR (NA) FOR NOT ANALYZED
- SAMPLE I.D. No
- HOMOGENEOUS AREA No.
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD

NOTE:

NO FRIABLE ASBESTOS-CONTAINING MATERIALS WERE IDENTIFIED IN THE ATTIC.

SYMBOLS

● LOCATION OF SAMPLES COLLECTED

(-) NON-ASBESTOS-CONTAINING MATERIAL

GRAPHIC SCALE

0 8' 16' 24'

SCALE: 1/8" = 1'-0"

CAPE ENVIRONMENTAL MANAGEMENT INC.
ATLANTA GEORGIA

DSGN | DR G.RIOS | CHK
SUPV S.BRYANT | CH ENGR
SUBMITTED BY (FIRM MEMBER-TITLE) | DATE
EIC | BR HD
FPE | DIR

REV. | DESCRIPTION | PREP BY | DATE APPRVD
APPROVED | DATE | OFFICER IN CHARGE

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
SOUTHERN DIVISION
CHARLESTON, S.C.

A-E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 759 - ATTIC PLAN

APPROVED | DATE | EFD FOR COMMANDER, NAVFAC

SEAL AREA

CODE ID.No | SIZE B
FED DRAWING NO
STA. PROJ. NO
CAPE PRJ. No 00009.006.000
SPEC. NO. N/A
CONSTRN. CNTR. NO. N62467-00-D-0341
NAVFAC DRAWING NO N/A
SHEET 3 OF 3

759ASB-3

FACILITY NO.: 760
DESCRIPTION: Officer's Quarters (vacant)

Building 760 is a one-level structure totaling 3,300 square feet plus a crawlspace and an attic space. The building was constructed in 1942.

PART 1 – FRIABLE ACM INVENTORY:

CAPE conducted a survey and inventory of friable ACM at this facility in May 2000. This survey was conducted to provide an inventory of friable ACM and to assess the condition of ACM (homogenous areas) for compliance with the DoD Policy on Asbestos at Base Realignment and Closure (BRAC) Properties. The following table provides an inventory of friable ACM identified:

Friable ACM Inventory

HA#	Material Description	HA Location	Material Type	Approximate HA Quantity	Condition Assessment
2	Damaged plaster ceiling	Kitchen	Surfacing	20 square feet	Damaged
4	Pipe insulation on domestic water lines, magnesia-type	Crawlspace	Thermal system insulation	600 linear feet	Significantly damaged
6	Pipe fitting insulation on magnesia-type insulated piping	Crawlspace	Thermal system insulation	40 each	Significantly damaged
7	Contaminated soil	Crawlspace	Thermal system insulation	2,700 square feet	Significantly damaged

In accordance with federal regulations, non-friable suspect ACM which were not inventoried or sampled as part of the scope of work for this project (as well as any "assumed" or "presumed" asbestos-containing materials) should be treated as asbestos-containing material and properly managed until testing is performed to demonstrate no asbestos is present.

FACILITY NO.: 760

PART 2 – DAMAGED FRIABLE ACM:

The following table provides a site-specific inventory of damaged and/or significantly damaged friable ACM. In accordance with DoD policy on asbestos at BRAC properties, CAPE recommends the Navy retain a licensed asbestos consultant/abatement contractor to complete the recommended abatement response actions outlined in the table below.

Damaged Friable ACM

HA#	Material Description	Damage Location	Approximate Damaged Quantity	Recommended Abatement Response Action
2	Plaster ceiling	Kitchen	20 square feet	Repair
4	Pipe insulation on domestic water lines, magnesia-type	Crawlspace	600 linear feet	Remove and replace
6	Pipe fitting insulation on magnesia-type insulated piping	Crawlspace	40 each	Remove and replace
7	Contaminated soil	Crawlspace	2,700 square feet	Remove

Non-Damaged/Friable ACM:

DoD policy allows transfer of properties "as is" if they contain ACM which is not in damaged/friable condition. Therefore, any friable ACM identified in this report as being in good condition, and which remain in good condition, is not required to be remediated prior to transfer. All friable ACM in good condition should be properly managed until the facility is transferred through the BRAC process.

FACILITY NO.: 760

PART 3 – BULK SAMPLE ANALYSIS RESULTS:

Samples collected by CAPE were analyzed by Polarized Light Microscopy (PLM) in accordance with EPA Method EPA/600/R-93/116 of July 1993. CAPE's laboratory in Atlanta, Georgia (NVLAP Lab Code 10211), served as the primary analytical laboratory. The table below provides a summary of analysis results for bulk samples collected from suspect friable ACM by CAPE. In accordance with federal and state regulations, a suspect material is considered to be ACM if it is determined to contain more than 1% asbestos by PLM (or is assumed to contain more than 1% asbestos).

Summary of Suspect Friable ACM

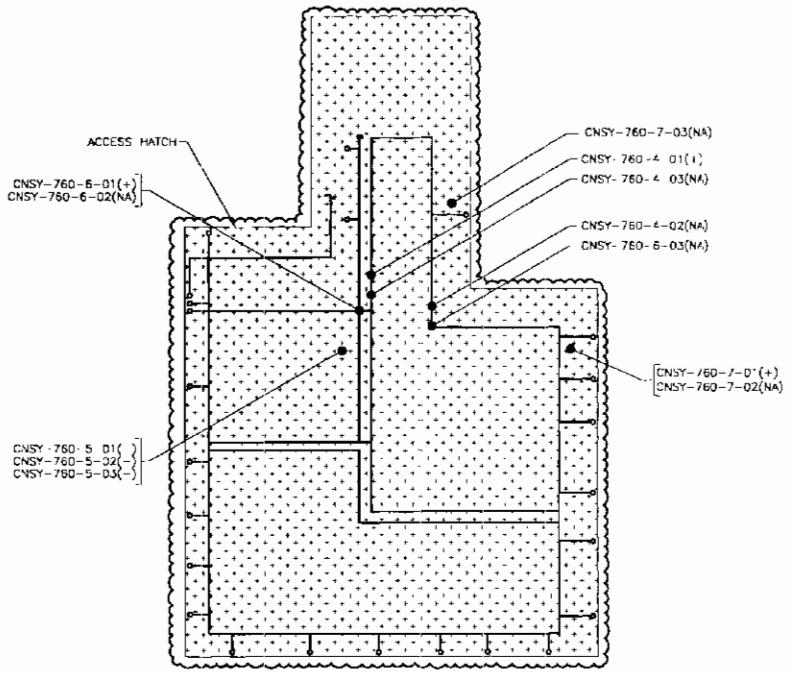
HA#	Material Description	Homogeneous Area Location	Sample I.D.	Analysis Result	ACM (YES/NO)
1	Damaged plaster walls	Kitchen and Bath 1	QC-CNSY-760-1-01	NAD	NO
			CNSY-760-1-01	NAD	
			CNSY-760-1-02	0.25% CHR (PC)	
			CNSY-760-1-03	NAD	
2	Damaged plaster ceiling	Kitchen	CNSY-760-2-01	4% CHR	**YES**
			CNSY-760-2-02	NAD	
			CNSY-760-2-03	NAD	
3	Damaged window putty	Exterior	QC-CNSY-760-3-01	NAD	NO
			CNSY-760-3-01	NAD	
			CNSY-760-3-02	NAD	
			CNSY-760-3-03	NAD	
4	Pipe insulation on domestic water lines, magnesia-type	Crawlspace	CNSY-760-4-01	10% CHR, 20% AMO	**YES**
			CNSY-760-4-02	Not Analyzed	
			CNSY-760-4-03	Not Analyzed	
5	Pipe insulation on steam lines, magnesia-type	Crawlspace	CNSY-760-5-01	NAD	NO
			CNSY-760-5-02	NAD	
			CNSY-760-5-03	NAD	
6	Pipe fitting insulation on magnesia-type insulated lines	Crawlspace	CNSY-760-6-01	20% CHR, 3% CRO	**YES**
			CNSY-760-6-02	Not Analyzed	
			CNSY-760-6-03	Not Analyzed	
7	Soil	Crawlspace	CNSY-760-7-01	60% CHR, 2% AMO	**YES**
			CNSY-760-7-02	Not Analyzed	
			CNSY-760-7-03	Not Analyzed	

EPA's PLM test method requires individual strata layers within a multi-layered material to be analyzed separately and separate analysis results to be reported for each layer. Multi-layered materials are, therefore, considered to be ACM if one or more layer(s) contain greater than 1% asbestos. Specific examples of multi-layered materials include plaster and stucco systems, and materials "added" to wallboard or other base materials (e.g., sprayed-on materials, skim coats, paints, ceiling or wall texture, etc.).

NAD = No Asbestos Detected
CHR = Chrysotile Asbestos
PC = Point Count analysis performed
AMO = Amosite Asbestos
CRO = Crocidolite Asbestos

Part 4

Floor Plan(s) Indicating Bulk Sample Locations and Extent of Identified Friable ACM (Including Damage Locations)



BUILDING 760 – CRAWLSPACE PLAN

SCALE: 1/16" = 1'-0"

LEGEND

FRIABLE ASBESTOS CONTAINING MATERIALS (ACM) IDENTIFIED

- PIPE AND PIPE FITTING INSULATION
- PIPE TURNS UP
- PIPE CAPPED
- PIPING INSULATION ENDS, PIPE CONTINUES
- CONTAMINATED SOIL
- LOCATION OF DAMAGED FRIABLE ASBESTOS-CONTAINING MATERIAL

SYMBOLS

- ● – · – LOCATION OF SAMPLES COLLECTED
- (+) ASBESTOS-CONTAINING MATERIAL
- (–) NON-ASBESTOS-CONTAINING MATERIAL
- (NA) INDICATES SAMPLE WAS NOT ANALYZED SINCE AT LEAST ONE SAMPLE RESULT OF THE SAME HOMOGENEOUS AREA (HA) IS POSITIVE. (SAMPLES FOR EACH HA WERE ANALYZED UNTIL POSITIVE).

TYPICAL CAPE SAMPLE I.D. No.
CNSY-760-1-01(+)

- POSITIVE (+) OR NEGATIVE (–) FOR THE PRESENCE OF ASBESTOS OR (NA) FOR NOT ANALYZED
- SAMPLE I.D. No.
- HOMOGENEOUS AREA No.
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD

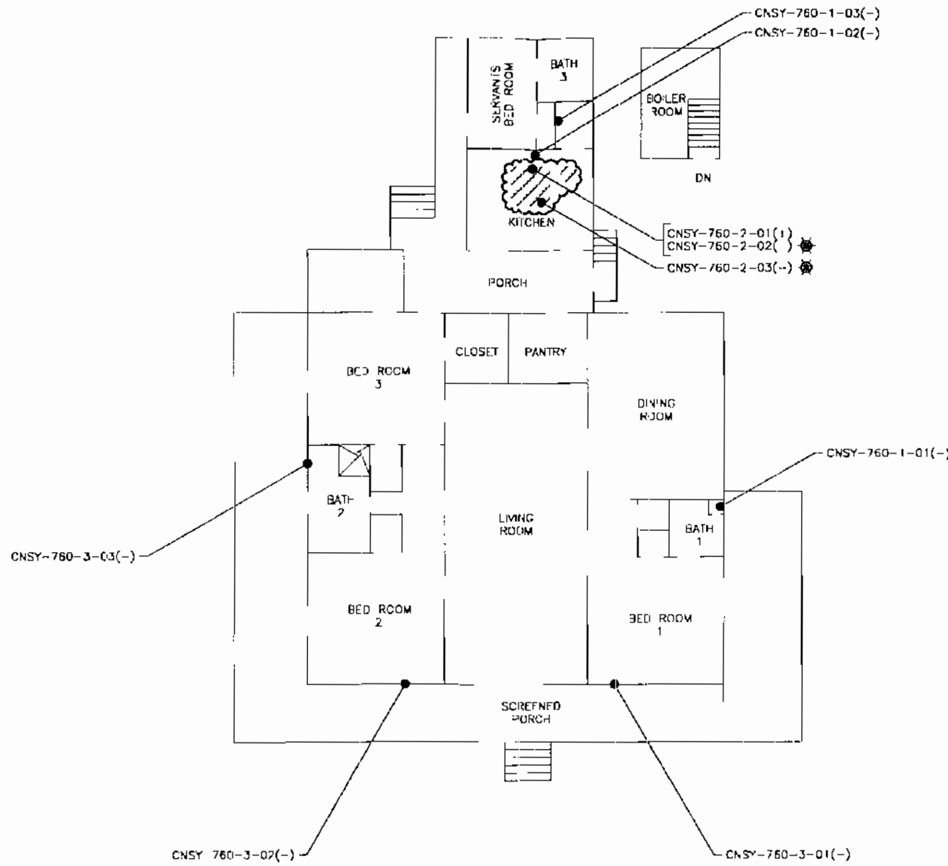
GRAPHIC SCALE

0 16' 32' 48'

SCALE: 1/16" = 1'-0"

A-E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 760 - CRAWLSPACE PLAN

760ASB-1



BUILDING 760 – FLOOR PLAN

SCALE: 1/16" = 1'-0"

NORTH

LEGEND

FRIABLE ASBESTOS-CONTAINING MATERIALS (ACM) IDENTIFIED

[hatched box] PLASTER CEILING

[cloud outline] LOCATION OF DAMAGED FRIABLE ASBESTOS-CONTAINING MATERIAL.

NOTE:
NO SUSPECT FRIABLE ASBESTOS-CONTAINING MATERIALS WERE IDENTIFIED IN THE ATTIC.

SYMBOLS

●—— LOCATION OF SAMPLES COLLECTED

(–) ASBESTOS CONTAINING MATERIAL

(–) NON-ASBESTOS-CONTAINING MATERIAL

✹ THIS SAMPLE'S ANALYSIS RESULT IS NEGATIVE, HOWEVER, AT LEAST ONE OTHER SAMPLE'S ANALYSIS RESULT OF SAME HOMOGENEOUS MATERIAL IS POSITIVE. THEREFORE ENTIRE HOMOGENEOUS MATERIAL IS CONSIDERED POSITIVE FOR ASBESTOS CONTENT.

TYPICAL CAPE SAMPLE I.D. No.

CNSY-760-1-01(+)

- POSITIVE (+) OR NEGATIVE (–) FOR THE PRESENCE OF ASBESTOS OR (NA) FOR NOT ANALYZED
- SAMPLE No.
- HOMOGENEOUS AREA No.
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD

GRAPHIC SCALE

0 16' 32' 48'

SCALE: 1/16" = 1'-0"

CAPE ENVIRONMENTAL MANAGEMENT INC.
ATLANTA GEORGIA
DSGN DR C.RICS CHK
SUPV S.BRYANT CH ENGR
SUBMITTED BY (FRM MEMBER-TITLE) DATE
EIC BR HD
FPE DPR

REV. DESCRIPTION | PREP BY | DATE APPRVD

DATE | OFFICER IN CHARGE

APPROVED

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
SOUTHERN DIVISION
CHARLESTON, S.C.

A-E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 760 – FLOOR PLAN

APPROVED | DATE | EFD FOR COMMANDER, NAVFAC

SEAL AREA

CODE ID.No. SIZE B
FEC DRAWING NO.
STA. PROJ. NO.
CAPE PRJ. No. 00009.006.000
SPEC. NO. N/A
CONSTRN CNTR. NO. N62467-00-0-0341
NAVFAC DRAWING NO. N/A
SHEET # OF #

760ASB-2

FACILITY NO.: 762
DESCRIPTION: Officer's Quarters (vacant)

Building 762 is a two-level structure totaling 2,150 square feet plus a crawlspace. The building was constructed in 1942.

PART 1 – FRIABLE ACM INVENTORY:

CAPE conducted a survey and inventory of friable ACM at this facility in May 2000. This survey was conducted to provide an inventory of friable ACM and to assess the condition of ACM (homogenous areas) for compliance with the DoD Policy on Asbestos at Base Realignment and Closure (BRAC) Properties. The following table provides an inventory of friable ACM identified:

Friable ACM Inventory

HA#	Material Description	HA Location	Material Type	Approximate HA Quantity	Condition Assessment
1	Contaminated Soil	Crawlspace	Thermal system insulation	1,610 square feet	Significantly damaged

In accordance with federal regulations, non-friable suspect ACM which were not inventoried or sampled as part of the scope of work for this project (as well as any "assumed" or "presumed" asbestos-containing materials) should be treated as asbestos-containing material and properly managed until testing is performed to demonstrate no asbestos is present.

FACILITY NO.: 762

PART 2 – DAMAGED FRIABLE ACM:

The following table provides a site-specific inventory of damaged and/or significantly damaged friable ACM. In accordance with DoD policy on asbestos at BRAC properties, CAPE recommends the Navy retain a licensed asbestos consultant/abatement contractor to complete the recommended abatement response actions outlined in the table below.

Damaged Friable ACM

HA#	Material Description	Damage Location	Approximate Damaged Quantity	Recommended Abatement Response Action
1	Contaminated Soil	Crawlspace	1,610 square feet	Remove

Non-Damaged/Friable ACM:
DoD policy allows transfer of properties "as is" if they contain ACM which is not in damaged/friable condition. Therefore, any friable ACM identified in this report as being in good condition, and which remain in good condition, is not required to be remediated prior to transfer. All friable ACM in good condition should be properly managed until the facility is transferred through the BRAC process.

FACILITY NO.: 762

PART 3 – BULK SAMPLE ANALYSIS RESULTS:

Samples collected by CAPE were analyzed by Polarized Light Microscopy (PLM) in accordance with EPA Method EPA/600/R-93/116 of July 1993. CAPE's laboratory in Atlanta, Georgia (NVLAP Lab Code 10211), served as the primary analytical laboratory. The table below provides a summary of analysis results for bulk samples collected from suspect friable ACM by CAPE. In accordance with federal and state regulations, a suspect material is considered to be ACM if it is determined to contain more than 1% asbestos by PLM (or is assumed to contain more than 1% asbestos).

Summary of Suspect Friable ACM

HA#	Material Description	Homogeneous Area Location	Sample I.D.	Analysis Result	ACM (YES/NO)
1	Soil	Crawlspace	CNSY-762-1-01	<1% CHR, 2% AMO	YES
			CNSY-762-1-02	<1% CHR, <1% AMO	
			CNSY-762-1-03	NAD	
			CNSY-762-1-04	NAD	
			CNSY-762-1-05	NAD	
2	Damaged window putty	Exterior	QC-CNSY-762-2-01	NAD	NO
			CNSY-762-2-01	NAD	
			CNSY-762-2-02	NAD	
			CNSY-762-2-03	NAD	

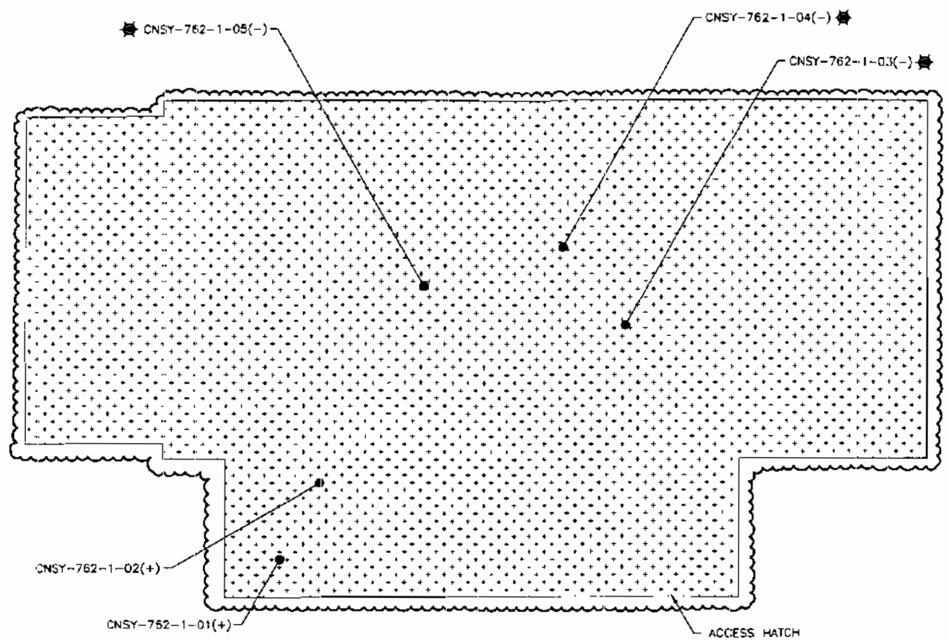
EPA's PLM test method requires individual strata layers within a multi-layered material to be analyzed separately and separate analysis results to be reported for each layer. Multi-layered materials are, therefore, considered to be ACM if one or more layer(s) contain greater than 1% asbestos. Specific examples of multi-layered materials include plaster and stucco systems, and materials "added" to wallboard or other base materials (e.g., sprayed-on materials, skim coats, paints, ceiling or wall texture, etc.).

NAD = No Asbestos Detected
CHR = Chrysotile Asbestos
PC = Point Count analysis performed

AMO = Amosite Asbestos
CRO = Crocidolite Asbestos

Part 4

Floor Plan(s) Indicating Bulk Sample Locations and Extent of Identified Friable ACM (Including Damage Locations)



BUILDING 762 – CRAWLSPACE PLAN
SCALE: 1/8" = 1'-0"

NORTH

TYPICAL CAPE SAMPLE I.D. No.
CNSY-762-1-01(+)
- POSITIVE (+) OR NEGATIVE (-) FOR THE PRESENCE OF ASBESTOS OR (NA) FOR NOT ANALYZED
- SAMPLE No.
- HOMOGENEOUS AREA No.
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD

LEGEND

FRIABLE ASBESTOS-CONTAINING MATERIALS (ACM) IDENTIFIED

- CONTAMINATED SOIL
- LOCATION OF DAMAGED FRIABLE ASBESTOS-CONTAINING MATERIAL

SYMBOLS

- LOCATION OF SAMPLES COLLECTED
- (+) ASBESTOS-CONTAINING MATERIAL
- (-) NON-ASBESTOS-CONTAINING MATERIAL
- THIS SAMPLE'S ANALYSIS RESULT IS NEGATIVE; HOWEVER, AT LEAST ONE OTHER SAMPLE'S ANALYSIS RESULT OF SAME HOMOGENEOUS MATERIAL IS POSITIVE. THEREFORE ENTIRE HOMOGENEOUS MATERIAL IS CONSIDERED POSITIVE FOR ASBESTOS CONTENT.

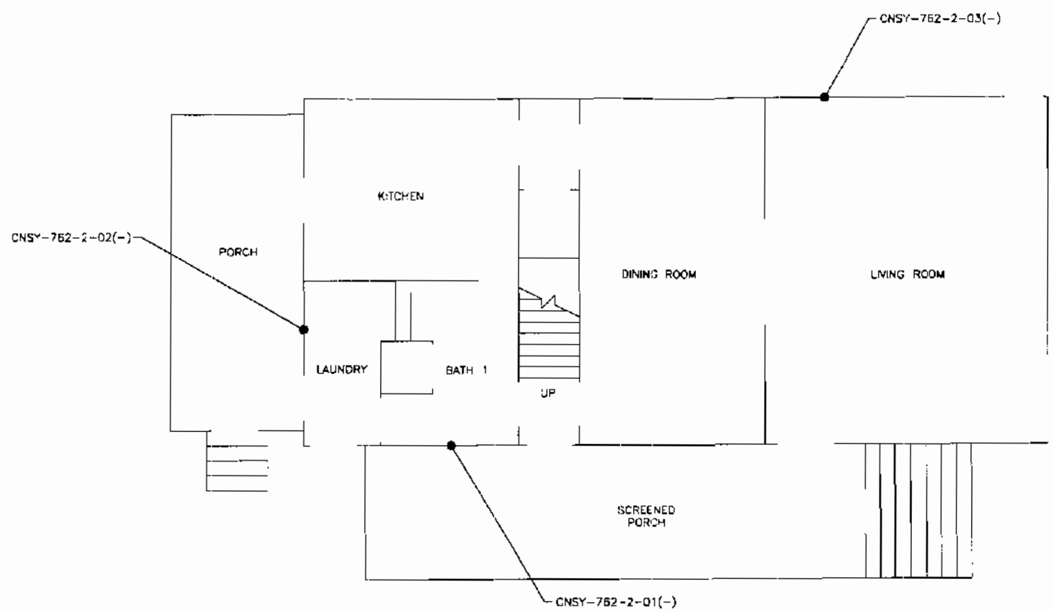
GRAPHIC SCALE
0 8' 16' 24'
SCALE: 1/8" = 1'-0"

CAPE ENVIRONMENTAL MANAGEMENT INC.
ATLANTA GEORGIA
DSGN DR C.RIGGS CHK
SUPV S.BRYANT CH ENGR
SUBMITTED BY (FIRM MEMBER-TITLE) DATE
OIC BR HD DIR
REV. DESCRIPTION PREP BY DATE APPRVD
OFFICER IN CHARGE DATE
APPROVED FOR COMMANDER, NAVFAC DATE

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
SOUTHERN DIVISION
CHARLESTON, S.C.
A-E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 760 – CRAWLSPACE PLAN

SEAL AREA

CODE ID.No. SIZE D
EFD DRAWING NO
STA. PROJ. NO
CAPE PRJ. No 00009.006.000
SPEC. NO. N/A
CONSTRN. CNTR. NO N62467-00-D-0341
NAVFAC DRAWING NO. N/A
SHEET 1 OF 3
762ASB-1



BUILDING 762 – FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

NORTH

TYPICAL CAPE SAMPLE I.D. No.

CNSY- 762-1-01(+)

- POSITIVE (+) OR NEGATIVE (-) FOR THE PRESENCE OF ASBESTOS OR (NA) FOR NOT ANALYZED
- SAMPLE No.
- HOMOGENEOUS AREA No.
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD

NOTE

NO FRIABLE ASBESTOS-CONTAINING MATERIALS WERE IDENTIFIED ON THIS FLOOR.

SYMBOLS

- LOCATION OF SAMPLES COLLECTED
- (-) NON-ASBESTOS-CONTAINING MATERIAL

GRAPHIC SCALE

0 8' 16' 24'

SCALE: 1/8" = 1'-0"

CAPE ENVIRONMENTAL MANAGEMENT INC
ATLANTA GEORGIA
DSGN | DR C.RIOS | CHK
SUPVS BRYANT | CH ENGR
SUBMITTED BY (FIRM MEMBER-TITLE) | DATE
EIC | BR HD
FPE | DIR

REV. | DESCRIPTION | PREP BY | DATE | APPRVD

OFFICER IN CHARGE | DATE | APPROVED

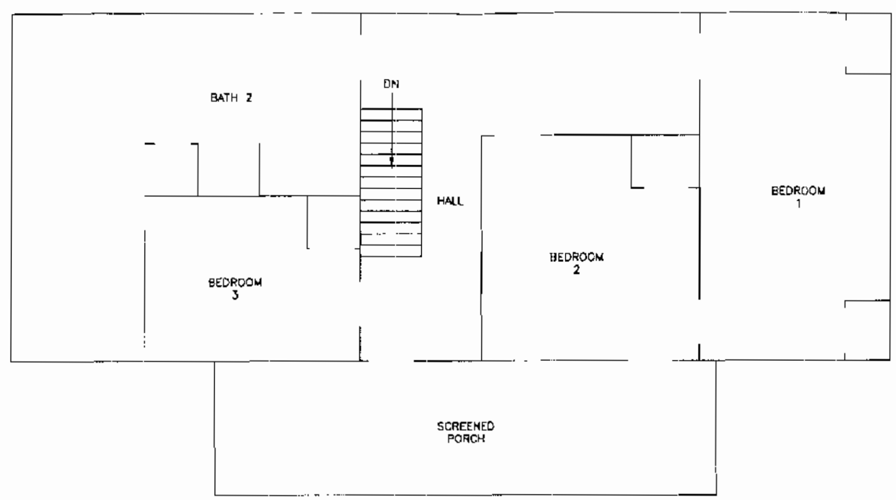
DEPARTMENT OF THE NAVY | NAVAL FACILITIES ENGINEERING COMMAND
SOUTHERN DIVISION
CHARLESTON, S.C.

A–E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 762 – FIRST FLOOR PLAN

APPROVED | DATE | EFD FOR COMMANDER, NAVFAC | APPROVED

SEAL AREA

CODE ID.No | SIZE B
FED DRAWING NO.
STA. PROJ. NO
CAPE PRJ No. 00009.008.000
SPEC NO. N/A
CONSTRN. CNTR. NO. N62467-00-0-0341
NAVFAC DRAWING NO. N/A
SHEET 1 OF 3
762ASB-2



BUILDING 762 – SECOND FLOOR PLAN

SCALE: 1/8" = 1'-0"

NORTH

NOTE

NO FRIABLE ASBESTOS-CONTAINING MATERIALS WERE IDENTIFIED ON THIS FLOOR.

GRAPHIC SCALE

0 8' 16' 24'

SCALE: 1/8" = 1'-0"

CAPE ENVIRONMENTAL MANAGEMENT INC.
ATLANTA GEORGIA

DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, S.C.

A-E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 762 – SECOND FLOOR PLAN

SEAL AREA

CODE ID No	SIZE B
FED DRAWING NO.	
STA. PROJ. NO.	
CAPE PRJ. No 00009.006.000	
SPEC. NO. N/A	
CONSTRN. CNTR. NO. N62467-00-D-0341	
NAVFAC DRAWING NO N/A	
SHEET 3	OF 3

762ASB-3

FACILITY NO.: 763
DESCRIPTION: Officer's Quarters (vacant)

Building 763 is a two-level structure totaling 2,150 square feet plus a crawlspace. The building was constructed in 1942.

PART 1 – FRIABLE ACM INVENTORY:

CAPE conducted a survey and inventory of friable ACM at this facility in May 2000. This survey was conducted to provide an inventory of friable ACM and to assess the condition of ACM (homogenous areas) for compliance with the DoD Policy on Asbestos at Base Realignment and Closure (BRAC) Properties. The following table provides an inventory of friable ACM identified:

Friable ACM Inventory

HA#	Material Description	HA Location	Material Type	Approximate HA Quantity	Condition Assessment
1	Contaminated Soil	Crawlspace	Thermal system insulation	1,610 square feet	Significantly damaged

In accordance with federal regulations, non-friable suspect ACM which were not inventoried or sampled as part of the scope of work for this project (as well as any "assumed" or "presumed" asbestos-containing materials) should be treated as asbestos-containing material and properly managed until testing is performed to demonstrate no asbestos is present.

FACILITY NO.: 763

PART 2 – DAMAGED FRIABLE ACM:

The following table provides a site-specific inventory of damaged and/or significantly damaged friable ACM. In accordance with DoD policy on asbestos at BRAC properties, CAPE recommends the Navy retain a licensed asbestos consultant/abatement contractor to complete the recommended abatement response actions outlined in the table below.

Damaged Friable ACM

HA#	Material Description	Damage Location	Approximate Damaged Quantity	Recommended Abatement Response Action
1	Contaminated Soil	Crawlspace	1,610 square feet	Remove

Non-Damaged/Friable ACM:
DoD policy allows transfer of properties "as is" if they contain ACM which is not in damaged/friable condition. Therefore, any friable ACM identified in this report as being in good condition, and which remain in good condition, is not required to be remediated prior to transfer. All friable ACM in good condition should be properly managed until the facility is transferred through the BRAC process.

FACILITY NO.: 763

PART 3 – BULK SAMPLE ANALYSIS RESULTS:

Samples collected by CAPE were analyzed by Polarized Light Microscopy (PLM) in accordance with EPA Method EPA/600/R-93/116 of July 1993. CAPE's laboratory in Atlanta, Georgia (NVLAP Lab Code 10211), served as the primary analytical laboratory. The table below provides a summary of analysis results for bulk samples collected from suspect friable ACM by CAPE. In accordance with federal and state regulations, a suspect material is considered to be ACM if it is determined to contain more than 1% asbestos by PLM (or is assumed to contain more than 1% asbestos).

Summary of Suspect Friable ACM

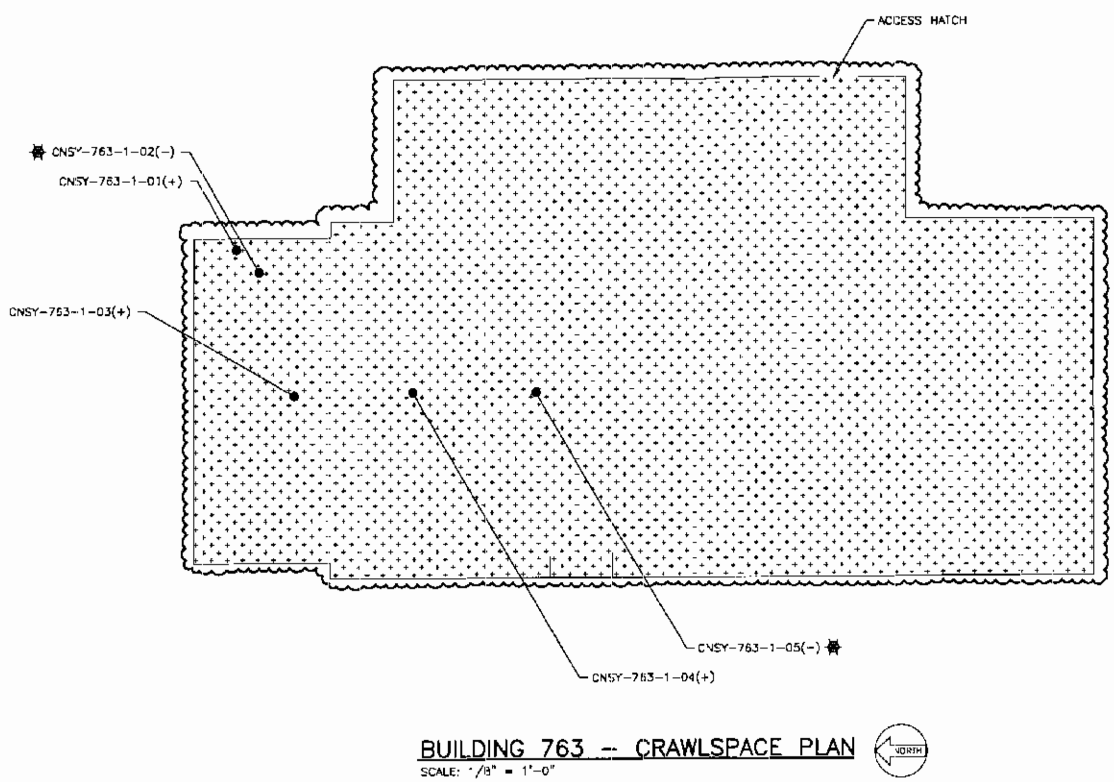
HA#	Material Description	Homogeneous Area Location	Sample I.D.	Analysis Result	ACM (YES/NO)
1	Soil	Crawlspace	CNSY-763-1-01	<1% CHR, <1% AMO	YES
			CNSY-763-1-02	NAD	
			CNSY-763-1-03	<1% AMO	
			CNSY-763-1-04	<1% CHR, <1% AMO	
			CNSY-763-1-05	NAD	
2	Window putty	Exterior	CNSY-763-2-01	NAD	NO
			CNSY-763-2-02	NAD	
			CNSY-763-2-03	NAD	

EPA's PLM test method requires individual strata layers within a multi-layered material to be analyzed separately and separate analysis results to be reported for each layer. Multi-layered materials are, therefore, considered to be ACM if one or more layer(s) contain greater than 1% asbestos. Specific examples of multi-layered materials include plaster and stucco systems, and materials "added" to wallboard or other base materials (e.g., sprayed-on materials, skim coats, paints, ceiling or wall texture, etc.).

NAD = No Asbestos Detected
CHR = Chrysotile Asbestos
PC = Point Count analysis performed
AMO = Amosite Asbestos
CRO = Crocidolite Asbestos

Part 4

Floor Plan(s) Indicating Bulk Sample Locations and Extent of Identified Friable ACM (Including Damage Locations)



BUILDING 763 – CRAWLSPACE PLAN

SCALE: 1/8" = 1'-0"

TYPICAL CAPE SAMPLE I.D. No.

CNSY-763-1-01(+)

- POSITIVE (+) OR NEGATIVE (-) FOR THE PRESENCE OF ASBESTOS OR (NA) FOR NOT ANALYZED
- SAMPLE I.D. No.
- HOMOGENEOUS AREA No.
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD

LEGEND

FRIABLE ASBESTOS-CONTAINING MATERIALS (ACM) IDENTIFIED

- CONTAMINATED SOIL
- LOCATION OF DAMAGED FRIABLE ASBESTOS-CONTAINING MATERIAL.

SYMBOLS

- LOCATION OF SAMPLES COLLECTED
- (+) ASBESTOS-CONTAINING MATERIAL
- (-) NON-ASBESTOS-CONTAINING MATERIAL
- THIS SAMPLE'S ANALYSIS RESULT IS NEGATIVE, HOWEVER, AT LEAST ONE OTHER SAMPLE'S ANALYSIS RESULT OF SAME HOMOGENEOUS MATERIAL IS POSITIVE. THEREFORE ENTIRE HOMOGENEOUS MATERIAL IS CONSIDERED POSITIVE FOR ASBESTOS CONTENT.

GRAPHIC SCALE

0 8' 16' 24'

SCALE: 1/8" = 1'-0"

CAPE ENVIRONMENTAL MANAGEMENT INC.
ATLANTA GEORGIA
DSGN | DR C.RIOS | CHK
SUPV S.BRYANT | CH ENGR
SUBMITTED BY (FIRM MEMBER-TITLE) | DATE
EIC | BR HD
FPE | DIR

REV. DESCRIPTION | PREP BY | DATE APPRVD
APPROVED | DATE | OFFICER IN CHARGE

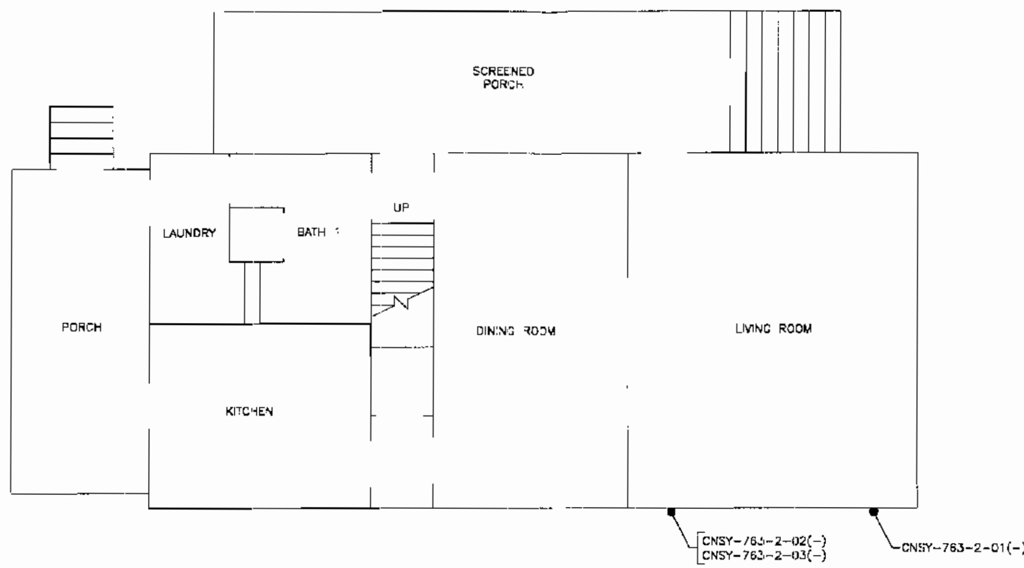
DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
SOUTHERN DIVISION
CHARLESTON, S.C.

A-E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 763 – CRAWLSPACE PLAN

APPROVED | DATE | FFD FOR COMMANDER, NAVFAC

SEAL AREA

CODE ID.No. | SIZE
FED DRAWING NO.
STA. PROJ. NO.
CAPE PRJ. No. 00006.006.000
SPEC. NO. N/A
CONSTRN. CNTR. NO. N62467-00-D-0341
NAVFAC DRAWING NO. N/A
SHEET 1 OF 3
763ASB-1



BUILDING 763 – FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

NORTH

TYPICAL CAPE SAMPLE I.D. No.

CNSY- 763-1-01(+)

- POSITIVE (+) OR NEGATIVE (-) FOR THE PRESENCE OF ASBESTOS OR (NA) FOR NOT ANALYZED
- SAMPLE I.D. No.
- HOMOGENEOUS AREA No.
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD

SYMBOLS

● LOCATION OF SAMPLES COLLECTED

(-) NON-ASBESTOS-CONTAINING MATERIAL

NOTE

NO FRIABLE ASBESTOS-CONTAINING MATERIALS WERE IDENTIFIED ON THIS FLOOR.

GRAPHIC SCALE

0 8' 16' 24'

SCALE: 1/8" = 1'-0"

CAPE ENVIRONMENTAL MANAGEMENT INC
ATLANTA GEORGIA
DSGN DR C.RIOS CHK
SUPV S.BRYANT CH ENGR
SUBMITTED BY (FIRM MEMBER TITLE) DATE
EIC BR HD
FPE DIR

REV. DESCRIPTION PREP BY DATE APPRVD

DATE OFFICER IN CHARGE

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
SOUTHERN DIVISION
CHARLESTON, S.C.

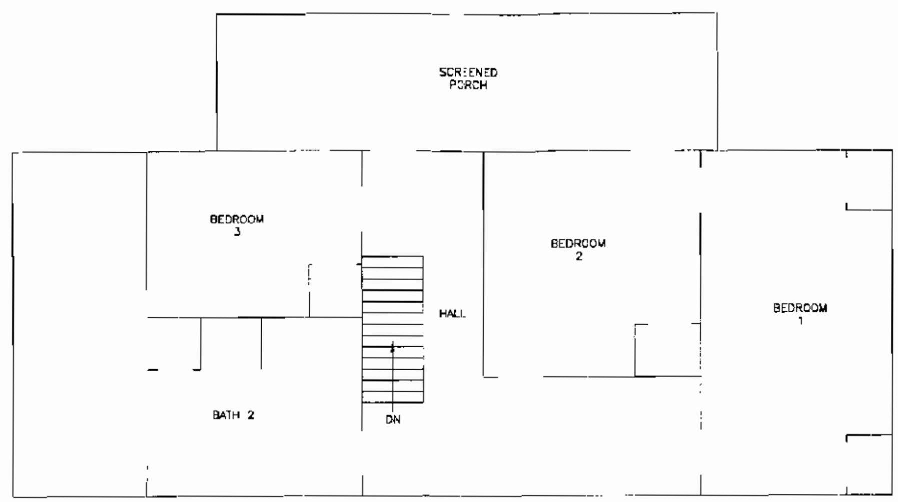
A-E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 763 – FIRST FLOOR PLAN

APPROVED DATE EFD FOR COMMANDER, NAVFAC APPROVED

SEAL AREA

CODE ID.No. SIZE B
EFD DRAWING NO.
E.A. PROJ. NO.
CAPE PRJ No. 00009.006.000
SPEC. NO. N/A
CONSTRN. CNTR. NO. N62467-90-D-0341
NAVFAC DRAWING NO. N/A
SHEET 2 OF 3

763ASB-2



BUILDING 763 – SECOND FLOOR PLAN

SCALE: 1/8" = 1'-0"

NORTH

NOTE
NO FRIABLE ASBESTOS-CONTAINING MATERIALS WERE IDENTIFIED ON THIS FLOOR

GRAPHIC SCALE
0 8' 16' 24'
SCALE: 1/8" = 1'-0"

CAPE ENVIRONMENTAL MANAGEMENT INC.
ATLANTA GEORGIA
DSGN DR C.RIOS CHK
SUPV S.BRYANT CH ENGR
SUBMITTED BY (FIRM MEMBER-TITLE) DATE

REV DESCRIPTION PREP BY DATE APPRVD

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
SOUTHERN DIVISION
CHARLESTON, S.C.

A–E SERVICES FOR ASBESTOS SURVEY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC
BUILDING 763 – SECOND FLOOR PLAN

APPROVED DATE EFD FOR COMMANDER, NAVFAC

SEAL AREA

CODE ID.No SIZE B
FED DRAWING NO.
STA. PROJ. NO.
CAPE PRJ No. 50009.005.000
SPEC. NO. N/A
CONSTRN. CNTR. NO. N62467-00-D-0341
NAVFAC DRAWING NO. N/A
SHEET 3 OF 3
763ASB-3

Appendix

Laboratory Reports: Asbestos Bulk Sample Analysis Results

CAPE ENVIRONMENTAL MANAGEMENT INC
2302 Parklake Drive, Suite 200, Atlanta, GA 30345
770/908-7200 Fax 770/908-7219

CHAIN OF CUSTODY

LABORATORY NAME:	CAPE Environmental		
CLIENT NAME	SDIV	PROJECT MANAGER:	MIKE SPRADLING
PROJECT NAME:	Charleston	PROJECT NUMBER:	00009.006.000
ANALYSIS REQUESTED:	PLM ☒	OTHER:	
TURNAROUND TIME REQUESTED:	SAME DAY ☒	NEXT DAY ☐	3 DAYS ☐ 5 DAYS ☐ NEED BY:
INSTRUCTIONS:	ANALYZE ALL ☐	STOP POSITIVE ☒	

	SAMPLE ID		SAMPLE ID
1	CNSY-758-01-01	16	
2	CNSY-758-01-02	17	
3	CNSY-758-01-03	18	
4	CNSY-758-02-01	19	
5	CNSY-758-02-02	20	
6	CNSY-758-02-03	21	
7	CNSY-758-03-01	22	
8	CNSY-758-03-02	23	
9	CNSY-758-03-03	24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	

SPECIAL INSTRUCTIONS.

RELINQUISHED BY:	[signature]	RECEIVED BY:	[signature]
DATE: 7/18/00	TIME: 0900	DATE: 7/19/00	TIME: 9.00
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:

C A P E
ENVIRONMENTAL
MANAGEMENT
I N C

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0151
DATE RECEIVED: 7/18/00
DATE ANALYZED: 7/18/00

REPORT ISSUED: 7/19/00

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
9284	CNSY-758-01-01		1+2 (of 2)	1. WHITE HARD SILTY WITH PAINT; 2. GRAY HARD CEMENTITIOUS TO GRANULAR			2 CELLULOSE	10 AGGREGATES 88 OTHER
9285	CNSY-758-01-02		1 (of 1)	WHITE HARD SILTY WITH PAINT AND AGGREGATES			2 CELLULOSE	5 AGGREGATES 93 OTHER
9286	CNSY-758-01-03		1 (of 1)	WHITE HARD SILTY WITH PAINT AND A TRACE OF AGGREGATES			2 CELLULOSE	1 AGGREGATES 97 OTHER
9287	CNSY-758-02-01		1 (of 1)	WHITE SOFT POWDERY TO FIBROUS		**15 CHRYSOTILE** **15 AMOSITE**	5 CELLULOSE	65 OTHER
9288	CNSY-758-02-02			NOT ANALYZED	NOT ANALYZED			
9289	CNSY-758-02-03			NOT ANALYZED	NOT ANALYZED			
9290	CNSY-758-03-01		1 (of 1)	GRAY AND TAN HARD SILTY WITH PAINT			1 CELLULOSE 1 SYNTHETICS	98 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S. EPA/600/R-93/116 METHOD OF JULY 1993
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON. 7/18/00

ANALYST
STEVE JARVIS

REVIEWER
ALEKSEY REZNIK

CAPE ENVIRONMENTAL MANAGEMENT INC

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM) BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0151
DATE RECEIVED: 7/18/00
DATE ANALYZED: 7/18/00

REPORT ISSUED: 7/19/00

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
9291	CNSY-758-03-02		1 (of 1)	GRAY AND TAN HARD SILTY WITH PAINT			1 CELLULOSE 1 SYNTHETICS	98 OTHER
9292	CNSY-758-03-03		1 (of 1)	GRAY AND TAN HARD SILTY WITH PAINT			1 CELLULOSE	99 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S EPA/600/R-93/116 METHOD OF JULY 1993.
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 7/18/00

ANALYST
STEVE JARVIS

REVIEWER
ALEKSEY REZNIK

CAPE ENVIRONMENTAL MANAGEMENT INC
2302 Parklake Drive, Suite 200, Atlanta, GA 30345
770/908-7200 Fax 770/908-7219

CHAIN OF CUSTODY

LABORATORY NAME:	Cape Environmental		
CLIENT NAME	S. Div	PROJECT MANAGER:	M. Spradling
PROJECT NAME:	Charleston NSY (5 Bldgs)	PROJECT NUMBER:	00009.006.000
ANALYSIS REQUESTED:	PLM ☒	OTHER:	

TURNAROUND TIME REQUESTED.	SAME DAY	NEXT DAY	3 DAYS	5 DAYS	NEED BY:
	☐	☐	☒	☐	

INSTRUCTIONS:	ANALYZE ALL ☐	STOP POSITIVE ☒

	SAMPLE ID		SAMPLE ID
1	CNSY-759-1-01	16	
2	1-02	17	
3	1-03	18	
4	2-01	19	
5	2-02	20	
6	2-03	21	
7	3-01	22	
8	3-02	23	
9	3-03	24	
10	4-01	25	
11	4-02	26	
12	4-03	27	
13	5-01	28	
14		29	
15		30	

SPECIAL INSTRUCTIONS: Include Comment "Quarters B" in Sample Location Field

RELINQUISHED BY:	M. Black	RECEIVED BY:	
DATE: 5/19/00	TIME: 1420	DATE: 5/19/00	TIME: 14:20
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:
RELINQUISHED BY		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:

CAPE ENVIRONMENTAL MANAGEMENT INC
2302 Parklake Drive, Suite 200, Atlanta, GA 30345
770/908-7200 Fax 770/908-7219

CHAIN OF CUSTODY

LABORATORY NAME:	CAPE Environmental		
CLIENT NAME	SDIV	PROJECT MANAGER:	MIKE SPRADLING
PROJECT NAME:	Charleston	PROJECT NUMBER:	00009.006.000
ANALYSIS REQUESTED:	PLM ☒	OTHER:	
TURNAROUND TIME REQUESTED:	SAME DAY ☒	NEXT DAY ☐	3 DAYS ☐ 5 DAYS ☐ NEED BY:
INSTRUCTIONS:	ANALYZE ALL ☐	STOP POSITIVE ☒	

	SAMPLE ID		SAMPLE ID
1	* CNSY-759-06-01	16	
2	* CNSY-759-06-02	17	
3	* CNSY-759-06-03	18	
4	CNSY-760-07-01	19	
5	CNSY-760-07-02	20	
6	CNSY-760-07-03	21	
7	CNSY-763-02-01	22	
8	CNSY-763-02-02	23	
9	CNSY-763-02-03	24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	

SPECIAL INSTRUCTIONS:

RELINQUISHED BY:		RECEIVED BY:	
DATE: 7/18/00	TIME: 0900	DATE: 7/18/00	TIME: 9.00
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:

CAPE ENVIRONMENTAL MANAGEMENT INC

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0104
DATE RECEIVED: 5/17/00
DATE ANALYZED: 5/23/00

REPORT ISSUED: 6/1/00
PAGE: 1 of 9

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6713	CNSY-759-1-01	QUARTERS B	1 (of 1)	GRAY SOFT FIBROUS WITH PAPER			90 CELLULOSE 3 SYNTHETICS	7 OTHER
6714	CNSY-759-1-02	QUARTERS B	1 (of 1)	GRAY SOFT FIBROUS WITH PAPER			90 CELLULOSE	10 OTHER
6715	CNSY-759-1-03	QUARTERS B	1 (of 1)	GRAY SOFT FIBROUS WITH PAPER			90 CELLULOSE 2 SYNTHETICS	8 OTHER
6716	CNSY-759-2-01	QUARTERS B	1 (of 1)	TAN HARD SILTY WITH PAINT			1 CELLULOSE	99 OTHER
6717	CNSY-759-2-02	QUARTERS B	1 (of 1)	TAN HARD SILTY WITH PAINT			1 CELLULOSE	99 OTHER
6718	CNSY-759-2-03	QUARTERS B	1 (of 1)	TAN HARD SILTY WITH PAINT			2 CELLULOSE	98 OTHER
6719	CNSY-759-3-01	QUARTERS B	1 (of 1)	WHITE SOFT POWDERY TO FIBROUS WITH CANVAS		**10 CHRYSOTILE** **10 AMOSITE**	60 CELLULOSE	20 OTHER
6720	CNSY-759-3-02	QUARTERS B		NOT ANALYZED	NOT ANALYZED			
6721	CNSY-759-3-03	QUARTERS B		NOT ANALYZED	NOT ANALYZED			

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA/600/R-93/116 METHOD OF JULY 1993.
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/23/00

ANALYST
STEVE JARVIS

QUALITY CONTROL
ALEKSEY REZNIK

CAPE ENVIRONMENTAL MANAGEMENT INC

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0104
DATE RECEIVED: 5/17/00
DATE ANALYZED: 5/23/00

REPORT ISSUED: 6/1/00

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

	SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
*	6722	CNSY-759-4-01	QUARTERS B	1 (of 1)	GRAY HARD CEMENTITIOUS TO FIBROUS		**35 CHRYSOTILE**		5 AGGREGATES 60 OTHER
*	6723	CNSY-759-4-02	QUARTERS B		NOT ANALYZED	NOT ANALYZED			
*	6724	CNSY-759-4-03	QUARTERS B		NOT ANALYZED	NOT ANALYZED			
*	6725	CNSY-759-5-01	QUARTERS B	1 (of 1)	GRAY SOFT FIBROUS		**80 CHRYSOTILE**		20 OTHER
	6726	CNSY-760-1-01	QUARTERS D	1 (of 1)	GRAY HARD CEMENTITIOUS TO GRANULAR WITH PAINT			2 CELLULOSE	45 AGGREGATES 53 OTHER
	6727	CNSY-760-1-02	QUARTERS D	1 (of 1)	GRAY HARD CEMENTITIOUS TO GRANULAR WITH PAINT		**<1 CHRYSOTILE**	1 CELLULOSE	40 AGGREGATES 1 MICA/ VERMICULITE 58 OTHER
	6728	CNSY-760-1-03	QUARTERS D	1 (of 1)	GRAY HARD CEMENTITIOUS TO GRANULAR WITH PAINT			2 CELLULOSE	50 AGGREGATES 48 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA/600/R-93/116 METHOD OF JULY 1993
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/23/00

ANALYST
STEVE JARVIS

QUALITY CONTROL
ALEKSEY REZNIK

CAPE ENVIRONMENTAL MANAGEMENT INC

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM) BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0151
DATE RECEIVED: 7/18/00
DATE ANALYZED: 7/18/00

REPORT ISSUED: 7/19/00

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
9293	CNSY-759-06-01		1 (of 1)	WHITE SOFT POWDERY TO FIBROUS		**20 CHRYSOTILE 10 AMOSITE**		70 OTHER
9294	CNSY-759-06-02			NOT ANALYZED	NOT ANALYZED			
9295	CNSY-759-06-03			NOT ANALYZED	NOT ANALYZED			

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON. 7/18/00

ANALYST
STEVE JARVIS

REVIEWER
ALEKSEY REZNIK

2302 Parklake Drive, Suite 200, Atlanta, GA 30345
770/908-7200 Fax 770/908-7219

CHAIN OF CUSTODY

LABORATORY NAME: MAS	
CLIENT NAME Cape Environmental	PROJECT MANAGER: M. Spradling
PROJECT NAME: Charleston NSY (5 Bldgs)	PROJECT NUMBER: 00009.006.000
ANALYSIS REQUESTED: PLM ☒	OTHER:

TURNAROUND TIME REQUESTED: SAME DAY ☐ NEXT DAY ☐ 3 DAYS ☐ 5 DAYS ☒ NEED BY:

INSTRUCTIONS: ANALYZE ALL ☒ STOP POSITIVE ☐

SAMPLE ID	SAMPLE ID
1 QC-CNSY-NH61-3-01	16
2 -6-01	17
3 -7-01	18
4 -9-01	19
5 -12-01	20
6 -14-01	21
7 -17-01	22
8 -20-01	23
9 -22-01	24
10 QC-CNSY-759-2-01	25
11 QC-CNSY-760-1-01	26
12 QC-CNSY-760-3-01	27
13 QC-CNSY-762-2-01	28
14	29
15	30

SPECIAL INSTRUCTIONS:

RELINQUISHED BY: [signature]		RECEIVED BY: [signature]	
DATE: 5/22/00	TIME: 0830	DATE: 5/23/00	TIME:
RELINQUISHED BY		RECEIVED BY:	
DATE	TIME:	DATE:	TIME
RELINQUISHED BY		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:

MATERIALS ANALYTICAL SERVICES, INC.
PLM ANALYSIS

Proj#-Spl# M23712 - 010 **Analyst** Derrill Duncan **Date** 5/23/00

ClientName Cape Environmental Management **ClientSpl** QC-NSY-759-2-01

Location

Type_Mat

Gross Visual Paint on gold mastic

OPTICAL DATA FOR ASBESTOS IDENTIFICATION

Morphology			
Pleochroism			
Refract Index			
Sign			
Extinction			
Birefringence			
Melt			
Fiber Name			

ASBESTOS MINERALS	EST. VOL. %
	NO ASBESTOS OBSERVED
Chrysotile	
Amosite	
Crocidolite	
Tremolite/Actinolite	
Anthophyllite	

OTHER FIBROUS COMPONENTS	
Cellulose	Trace

NON FIBROUS COMPONENTS	
Mica	X
Mineral grains	X
Binder	X

Binder Description

Comments X = Materials detected.

CAPE ENVIRONMENTAL MANAGEMENT INC
2302 Parklake Drive, Suite 200, Atlanta, GA 30345
770/908-7200 Fax 770/908-7219

CHAIN OF CUSTODY

LABORATORY NAME: Cape Environmental					
CLIENT NAME S. DIV		PROJECT MANAGER: M. Spradling			
PROJECT NAME: Charleston Naval Shipyard (SBBgs)		PROJECT NUMBER: 00009.006.000			
ANALYSIS REQUESTED: PLM ☒		OTHER:			
TURNAROUND TIME REQUESTED:	SAME DAY ☐	NEXT DAY ☐	3 DAYS ☒	5 DAYS ☐	NEED BY:
INSTRUCTIONS:	ANALYZE ALL ☐	STOP POSITIVE ☒			

	SAMPLE ID		SAMPLE ID
1	CNSY-760-1-01	16	CNSY-760-6-01
2	-1-02	17	-6-02
3	-1-03	18	-603
4	-2-01	19	
5	-2-02	20	
6	-2-03	21	
7	-3-01	22	
8	-3-02	23	
9	-3-03	24	
10	-4-01	25	
11	-4-02	26	
12	-4-03	27	
13	-5-01	28	
14	-5-02	29	
15	-5-03	30	

SPECIAL INSTRUCTIONS: * Include Quarters D in Sample Location Field.

RELINQUISHED BY: [signature]		RECEIVED BY: [signature]	
DATE: 5-19-00	TIME: 1410	DATE: 5/19/00	TIME:
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME	DATE:	TIME:
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:

CAPE ENVIRONMENTAL MANAGEMENT INC
2302 Parklake Drive, Suite 200, Atlanta, GA 30345
770/908-7200 Fax 770/908-7219

CHAIN OF CUSTODY

LABORATORY NAME:	CAPE Environmental		
CLIENT NAME	SDIV	PROJECT MANAGER:	MIKE SPRADLING
PROJECT NAME:	Charleston	PROJECT NUMBER:	00009.006.000
ANALYSIS REQUESTED:	PLM ☒	OTHER:	
TURNAROUND TIME REQUESTED.	SAME DAY ☒	NEXT DAY ☐	3 DAYS ☐ 5 DAYS ☐ NEED BY:
INSTRUCTIONS:	ANALYZE ALL ☐	STOP POSITIVE ☒	

	SAMPLE ID		SAMPLE ID
1	CNSY-759-06-01	16	
2	CNSY-759-06-02	17	
3	CNSY-759-06-03	18	
4 *	CNSY-760-07-01	19	
5 *	CNSY-760-07-02	20	
6 *	CNSY-760-07-03	21	
7	CNSY-763-02-01	22	
8	CNSY-763-02-02	23	
9	CNSY-763-02-03	24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	

SPECIAL INSTRUCTIONS:

RELINQUISHED BY:	[signature]	RECEIVED BY:	[signature]
DATE: 7/18/00	TIME: 0900	DATE: 7/18/00	TIME: 9:00
RELINQUISHED BY		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME	DATE:	TIME:

CAPE ENVIRONMENTAL MANAGEMENT INC

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME:	NAVY SOUTH DIVISION	LAB JOB NO:	B0104	REPORT ISSUED	6/1/00
PROJECT NAME:	CHARLESTON NSY (5 BLDGS.)	DATE RECEIVED:	5/17/00	PAGE:	2 of 9
PROJECT NO:	00009.006.000	DATE ANALYZED:	5/23/00		

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

	SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
	6722	CNSY-759-4-01	QUARTERS B	1 (of 1)	GRAY HARD CEMENTITIOUS TO FIBROUS		35 CHRYSOTILE		5 AGGREGATES 60 OTHER
	6723	CNSY-759-4-02	QUARTERS B		NOT ANALYZED	NOT ANALYZED			
	6724	CNSY-759-4-03	QUARTERS B		NOT ANALYZED	NOT ANALYZED			
	6725	CNSY-759-5-01	QUARTERS B	1 (of 1)	GRAY SOFT FIBROUS		80 CHRYSOTILE		20 OTHER
*	6726	CNSY-760-1-01	QUARTERS D	1 (of 1)	GRAY HARD CEMENTITIOUS TO GRANULAR WITH PAINT			2 CELLULOSE	45 AGGREGATES 53 OTHER
*	6727	CNSY-760-1-02	QUARTERS D	1 (of 1)	GRAY HARD CEMENTITIOUS TO GRANULAR WITH PAINT		<1 CHRYSOTILE	1 CELLULOSE	40 AGGREGATES 1 MICA/ VERMICULITE 58 OTHER
*	6728	CNSY-760-1-03	QUARTERS D	1 (of 1)	GRAY HARD CEMENTITIOUS TO GRANULAR WITH PAINT			2 CELLULOSE	50 AGGREGATES 48 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA/600/R-93/116 METHOD OF JULY 1993

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/23/00

ANALYST

STEVE JARVIS

QUALITY CONTROL

ALEKSEY REZNIK

C A P E
ENVIRONMENTAL
MANAGEMENT
I N C

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345
TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ACCREDITED
LAB CODE -102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT (POINT COUNT)

CLIENT NAME:	NAVY SOUTH DIVISION	LAB JOB NO:	B0104
PROJECT NAME:	CHARLESTON NSY (5 BLDGS.)	DATE RECEIVED:	5/17/00
PROJECT NO:	00009.006.000		
FIELD ID:	**CNSY-760-1-02**	LAB ID:	6727
		DATE ANALYZED:	7/7/00

RESULT OF POINT COUNTING ANALYSIS

	ASBESTOS FIBERS		NONASBESTOS FIBERS	
COMPONENT	**CHRYSOTILE**			
POINTS OF COMPONENT COUNTED	1			
TOTAL POINTS COUNTED	400			
CONTENT (area %)	**0.25**			

Analyzed in accordance with EPA/600/R-93/116 Method.

- Only fibrous components were point-counted.
- For additional information on the sample content refer to Visual Estimate lab report # 6727

ANALYZED BY:

STEVE JARVIS

C A P E
ENVIRONMENTAL
MANAGEMENT
I N C

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0104
DATE RECEIVED: 5/17/00
DATE ANALYZED: 5/23/00

REPORT ISSUED: 7/7/00

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6729-1	CNSY-760-2-01	QUARTERS D	1 (of 2)	TAN HARD CEMENTITIOUS TO GRANULAR			1 CELLULOSE	40 AGGREGATES 59 OTHER
6729-2	CNSY-760-2-01	QUARTERS D	2 (of 2)	TAN HARD SILTY WITH PAINT	LAYER IS 65% OF THE SAMPLE VOLUME	**4 CHRYSOTILE**		3 MICA/ VERMICULITE 93 OTHER
6730	CNSY-760-2-02	QUARTERS D	1 (of 1)	TAN SOFT POWDERY TO GRANULAR WITH LAYERS OF PAINT			1 CELLULOSE	25 AGGREGATES 1 MICA/ VERMICULITE 73 OTHER
6731	CNSY-760-2-03	QUARTERS D	1 (of 1)	TAN SOFT POWDERY TO GRANULAR WITH LAYERS OF PAINT			1 CELLULOSE	40 AGGREGATES 1 MICA/ VERMICULITE 58 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S EPA/600/R-93/116 METHOD OF JULY 1993
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/23/00

ANALYST
STEVE JARVIS

REVIEWER
ALEKSEY REZNIK

C A P E
ENVIRONMENTAL
MANAGEMENT
I N C

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0104
DATE RECEIVED: 5/17/00
DATE ANALYZED: 5/23/00

REPORT ISSUED: 6/1/00

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6732	CNSY-760-3-01	QUARTERS D	1 (of 1)	TAN HARD SILTY WITH PAINT			1 CELLULOSE	1 MICA/ VERMICULITE 98 OTHER
6733	CNSY-760-3-02	QUARTERS D	1 (of 1)	TAN HARD SILTY WITH GLUE AND PAINT			1 CELLULOSE	1 MASTIC 1 MICA/ VERMICULITE 97 OTHER
6734	CNSY-760-3-03	QUARTERS D	1 (of 1)	TAN HARD SILTY WITH PAINT			2 CELLULOSE	1 MICA/ VERMICULITE 97 OTHER
6735	CNSY-760-4-01	QUARTERS D	1 (of 1)	WHITE SOFT POWDERY TO FIBROUS		**10 CHRYSOTILE** **20 AMOSITE**		70 OTHER
6736	CNSY-760-4-02	QUARTERS D		NOT ANALYZED	NOT ANALYZED			
6737	CNSY-760-4-03	QUARTERS D		NOT ANALYZED	NOT ANALYZED			

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA/600/R-93/116 METHOD OF JULY 1993
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/23/00

ANALYST
STEVE JARVIS

QUALITY CONTROL
ALEKSEY REZNIK

CAMPBELL ENVIRONMENTAL MANAGEMENT INC

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0104
DATE RECEIVED: 5/17/00
DATE ANALYZED: 5/23/00

REPORT ISSUED: 6/1/00

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6738	CNSY-760-5-01	QUARTERS D	1 (of 1)	WHITE SOFT POWDERY TO FIBROUS WITH CANVAS AND PAINT			5 CELLULOSE 25 GLASS FIBERS	70 OTHER
6739	CNSY-760-5-02	QUARTERS D	1 (of 1)	WHITE SOFT POWDERY TO FIBROUS WITH CANVAS AND PAINT			15 CELLULOSE 25 GLASS FIBERS	60 OTHER
6740	CNSY-760-5-03	QUARTERS D	1 (of 1)	WHITE SOFT POWDERY TO FIBROUS WITH CANVAS AND PAINT			15 CELLULOSE 20 GLASS FIBERS	65 OTHER
6741	CNSY-760-6-01	QUARTERS D	1 (of 1)	WHITE SOFT POWDERY TO FIBROUS WITH CANVAS		**20 CHRYSOTILE** **3 CROCIDOLITE**	45 CELLULOSE 2 GLASS FIBERS	30 OTHER
6742	CNSY-760-6-02	QUARTERS D		NOT ANALYZED	NOT ANALYZED			
6743	CNSY-760-6-03	QUARTERS D		NOT ANALYZED	NOT ANALYZED			

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA/600/R-93/116 METHOD OF JULY 1993
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/23/00

ANALYST
STEVE JARVIS

QUALITY CONTROL
ALEKSEY REZNIK

CAPE ENVIRONMENTAL MANAGEMENT INC

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: *00009.006.000*

LAB JOB NO: B0151
DATE RECEIVED: 7/18/00
DATE ANALYZED: 7/18/00

REPORT ISSUED: 7/19/00
PAGE: 4 of 5

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
9296	CNSY-760-07-01		1 (of 1)	GRAY AND WHITE SOFT POWDERY TO FIBROUS MIXED WITH GRANULAR SOIL		**60 CHRYSOTILE 2 AMOSITE**	3 CELLULOSE 2 SYNTHETICS	10 AGGREGATES 23 OTHER
9297	CNSY-760-07-02			NOT ANALYZED	NOT ANALYZED			
9298	CNSY-760-07-03			NOT ANALYZED	NOT ANALYZED			

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA/600/R-93/116 METHOD OF JULY 1993.
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 7/18/00

ANALYST
STEVE JARVIS

REVIEWER
ALEKSEY REZNIK

2302 Parklake Drive, Suite 200, Atlanta, GA 30345
770/908-7200 Fax 770/908-7219

CHAIN OF CUSTODY

LABORATORY NAME: MAS			
CLIENT NAME: Cape Environmental		PROJECT MANAGER: M. Spradling	
PROJECT NAME: Charleston NSY (5 Bldgs)		PROJECT NUMBER: 00009.006.000	
ANALYSIS REQUESTED: PLM ☒		OTHER:	
TURNAROUND TIME REQUESTED: SAME DAY ☐	NEXT DAY ☐	3 DAYS ☐ 5 DAYS ☒	NEED BY:
INSTRUCTIONS	ANALYZE ALL ☒	STOP POSITIVE ☐	

SAMPLE ID	SAMPLE ID
1 QC-CNSY-NH61-3-01	16
2 -6-01	17
3 -7-01	18
4 -9-01	19
5 -12-01	20
6 -14-01	21
7 -17-01	22
8 -20-01	23
9 -22-01	24
10 QC-CNSY-759-2-01	25
11 QC-CNSY-760-1-01	26
12 QC-CNSY-760-3-01	27
13 QC-CNSY-762-2-01	28
14	29
15	30

SPECIAL INSTRUCTIONS

RELINQUISHED BY: MBlat		RECEIVED BY: [signature]	
DATE: 5/22/00	TIME: 0830	DATE: 5/23/00	TIME:
RELINQUISHED BY:		RECEIVED BY:	
DATE	TIME	DATE:	TIME
RELINQUISHED BY:		RECEIVED BY	
DATE:	TIME:	DATE:	TIME:

MATERIALS ANALYTICAL SERVICES, INC.
PLM ANALYSIS

Proj#-Spl# M23712-011 **Analyst** Derrill Duncan **Date** 5/23/00

ClientName Cape Environmental Management **ClientSpl** QC-NSY-760-1-01

Location

Type_Mat

Gross Visual White sandy compound

OPTICAL DATA FOR ASBESTOS IDENTIFICATION

Morphology			
Pleochroism			
Refract Index			
Sign			
Extinction			
Birefringence			
Melt			
Fiber Name			

ASBESTOS MINERALS	EST. VOL. %
	NO ASBESTOS OBSERVED
Chrysotile.....	
Amosite.....	
Crocidolite.....	
Tremolite/Actinolite.....	
Anthophyllite.....	

OTHER FIBROUS COMPONENTS

NON FIBROUS COMPONENTS

Mineral grains	X
Binder	X

Binder Description

Comments X = Materials detected.

MATERIALS ANALYTICAL SERVICES, INC.
PLM ANALYSIS

Proj#-Spl# M23712-012 **Analyst** Derrill Duncan **Date** 5/23/00

ClientName Cape Environmental Management **ClientSpl** QC-NSY-760-3-01

Location

Type_Mat

Gross Visual Paint on gold mastic

OPTICAL DATA FOR ASBESTOS IDENTIFICATION

Morphology			
Pleochroism			
Refract Index			
Sign			
Extinction			
Birefringence			
Melt			
Fiber Name			

ASBESTOS MINERALS	EST. VOL. %
	NO ASBESTOS OBSERVED
Chrysotile.....	
Amosite.....	
Crocidolite.....	
Tremolite/Actinolite.....	
Anthophyllite.....	

OTHER FIBROUS COMPONENTS

Cellulose	Trace

NON FIBROUS COMPONENTS

Mineral grains	X
Binder	X

Binder Description

Comments X = Materials detected.

CAPE ENVIRONMENTAL MANAGEMENT INC
2302 Parklake Drive, Suite 200, Atlanta, GA 30345
770/908-7200 Fax 770/908-7219

CHAIN OF CUSTODY

LABORATORY NAME: Cape Environmental					
CLIENT NAME: S. Div		PROJECT MANAGER: M. Spadling			
PROJECT NAME: Charleston NSY (SB/Dgs		PROJECT NUMBER: 00009.006.000			
ANALYSIS REQUESTED: PLM ☒		OTHER:			
TURNAROUND TIME REQUESTED:	SAME DAY ☐	NEXT DAY ☐	3 DAYS ☒	5 DAYS ☐	NEED BY:
INSTRUCTIONS:	ANALYZE ALL ☐	STOP POSITIVE ☒			

	SAMPLE ID		SAMPLE ID
1	CNSY-762-1-01	16	
2	1-02	17	
3	1-03	18	
4	2-01	19	
5	2-02	20	
6	2-03	21	
7	1-04	22	
8	1-05	23	
9		24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	

SPECIAL INSTRUCTIONS: Include Comment "Quarters H" in Sample Location Field

RELINQUISHED BY: M. Blair		RECEIVED BY:	
DATE: 5/19/00	TIME: 1420	DATE: 5/19/00	TIME: 15.60
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:
RELINQUISHED BY		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:

CAPE ENVIRONMENTAL MANAGEMENT INC

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0104
DATE RECEIVED: 5/17/00
DATE ANALYZED: 5/23/00

REPORT ISSUED: 6/1/00
PAGE: 6 of 9

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6744	CNSY-762-1-01	QUARTERS H	1 (of 1)	BROWN SOFT SOIL POWDERY TO GRANULAR WITH ACM DEBRIS	ACM MATERIAL CONTAINS 15% AMOSITE AND 10% CHRYSOTILE. ACM MATERIAL IS 10% OF THE SAMPLE VOLUME	**<1 CHRYSOTILE 2 AMOSITE**	2 CELLULOSE 1 GLASS FIBERS	70 AGGREGATES 25 OTHER
6745	CNSY-762-1-02	QUARTERS H	1 (of 1)	BROWN SOFT SOIL POWDERY TO GRANULAR WITH ACM DEBRIS	TOTAL ASBESTOS <1%	**<1 CHRYSOTILE <1 AMOSITE**	5 CELLULOSE 2 GLASS FIBERS	65 AGGREGATES 28 OTHER
6746	CNSY-762-1-03	QUARTERS H	1 (of 1)	BROWN SOFT SOIL POWDERY TO GRANULAR WITH FIBERS AND DEBRIS			5 CELLULOSE	85 AGGREGATES 10 OTHER
6750	CNSY-762-1-04	QUARTERS H	1 (of 1)	BROWN SOFT POWDERY TO GRANULAR SOIL WITH FIBERS AND DEBRIS			3 CELLULOSE 1 GLASS FIBERS	75 AGGREGATES 21 OTHER
6751	CNSY-762-1-05	QUARTERS H	1 (of 1)	BROWN SOFT POWDERY TO GRANULAR SOIL WITH CEMENTITIOUS DEBRIS			7 CELLULOSE	80 AGGREGATES 13 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA/600/R-93/116 METHOD OF JULY 1993
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/23/00

ANALYST
STEVE JARVIS

QUALITY CONTROL
ALEKSEY REZNIK

CAPE ENVIRONMENTAL MANAGEMENT INC

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0104
DATE RECEIVED: 5/17/00
DATE ANALYZED: 5/23/00

REPORT ISSUED: 6/1/00
PAGE: 7 of 9

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6747	CNSY-762-2-01	QUARTERS H	1 (of 1)	GRAY AND TAN HARD SILTY WITH PAINT			2 CELLULOSE	1 MICA/ VERMICULITE 97 OTHER
6748	CNSY-762-2-02	QUARTERS H	1 (of 1)	GRAY HARD SILTY WITH PAINT			1 CELLULOSE 1 TALC	1 MICA/ VERMICULITE 97 OTHER
6749	CNSY-762-2-03	QUARTERS H	1 (of 1)	GRAY HARD SILTY WITH PAINT			1 CELLULOSE 2 WOLLASTONITE 1 TALC	1 MICA/ VERMICULITE 95 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S. EPA/600/R-93/116 METHOD OF JULY 1993.
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/23/00

ANALYST
STEVE JARVIS

QUALITY CONTROL
ALEKSEY REZNIK

2302 Parklake Drive, Suite 200, Atlanta, GA 30345
770/908-7200 Fax 770/908-7219

CHAIN OF CUSTODY

LABORATORY NAME: MAS

CLIENT NAME Cape Environmental	PROJECT MANAGER: M. Spradling
PROJECT NAME: Charleston NSY (5 Bldgs)	PROJECT NUMBER. 00009.006.000
ANALYSIS REQUESTED. PLM ☒	OTHER:

TURNAROUND TIME REQUESTED: SAME DAY ☐ NEXT DAY ☐ 3 DAYS ☐ 5 DAYS ☒ NEED BY:

INSTRUCTIONS: ANALYZE ALL ☒ STOP POSITIVE ☐

SAMPLE ID	SAMPLE ID
1 QC-CNSY-NH61-3-01	16
2 -6-01	17
3 -7-01	18
4 -9-01	19
5 -12-01	20
6 -14-01	21
7 -17-01	22
8 -20-01	23
9 -22-01	24
10 QC-CNSY-759-2-01	25
11 QC-CNSY-760-1-01	26
12 QC-CNSY-760-3-01	27
13 QC-CNSY-762-2-01	28
14	29
15	30

SPECIAL INSTRUCTIONS

RELINQUISHED BY: [signature]		RECEIVED BY: [signature]	
DATE: 5/22/00	TIME: 0830	DATE. 5/23/00	TIME.
RELINQUISHED BY.		RECEIVED BY	
DATE	TIME	DATE:	TIME
RELINQUISHED BY		RECEIVED BY	
DATE.	TIME:	DATE:	TIME

MATERIALS ANALYTICAL SERVICES, INC.
PLM ANALYSIS

Proj#-Spl# M23712 - 013 **Analyst** Derrill Duncan **Date** 5/23/00

ClientName Cape Environmental Management **ClientSpl** QC-NSY-762-2-01

Location

Type_Mat

Gross Visual Paint on white mastic

OPTICAL DATA FOR ASBESTOS IDENTIFICATION

Morphology			
Pleochroism			
Refract Index			
Sign			
Extinction			
Birefringence			
Melt			
Fiber Name			

ASBESTOS MINERALS	EST. VOL. %
	NO ASBESTOS OBSERVED
Chrysotile	
Amosite	
Crocidolite	
Tremolite/Actinolite	
Anthophyllite	

OTHER FIBROUS COMPONENTS

Cellulose	Trace

NON FIBROUS COMPONENTS

Mica	X
Mineral grains	X
Binder	X

Binder Description

Comments X = Materials detected.

CAPE ENVIRONMENTAL MANAGEMENT INC
2302 Parklake Drive, Suite 200, Atlanta, GA 30345
770/908-7200 Fax 770/908-7219

CHAIN OF CUSTODY

LABORATORY NAME: Cape Environmental					
CLIENT NAME: S. Div		PROJECT MANAGER: M. Spradling			
PROJECT NAME: Charleston NSY (5 Bldgs)		PROJECT NUMBER: 00009.006.000			
ANALYSIS REQUESTED: PLM ☒		OTHER:			
TURNAROUND TIME REQUESTED:	SAME DAY ☐	NEXT DAY ☐	3 DAYS ☒	5 DAYS ☐	NEED BY:
INSTRUCTIONS:	ANALYZE ALL ☐	STOP POSITIVE ☒			

	SAMPLE ID		SAMPLE ID
1	CNSY-763 - 1-01	16	
2	1-02	17	
3	1-03	18	
4	1-04	19	
5	1-05	20	
6		21	
7		22	
8		23	
9		24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	

SPECIAL INSTRUCTIONS: Include Comment "Quarters I" in Sample Location Field

RELINQUISHED BY: MBlan		RECEIVED BY:	
DATE: 5/19/00	TIME: 1420	DATE: 5/19/00	TIME: 3 pm
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME:	DATE	TIME:
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:

CAPE ENVIRONMENTAL MANAGEMENT INC
2302 Parklake Drive, Suite 200, Atlanta, GA 30345
770/908-7200 Fax 770/908-7219

CHAIN OF CUSTODY

LABORATORY NAME:	CAPE Environmental		
CLIENT NAME	SDIV	PROJECT MANAGER:	MIKE SPRADLING
PROJECT NAME:	Charleston	PROJECT NUMBER:	00009.006.000
ANALYSIS REQUESTED:	PLM ☒	OTHER:	
TURNAROUND TIME REQUESTED:	SAME DAY ☒	NEXT DAY ☐	3 DAYS ☐ 5 DAYS ☐ NEED BY:
INSTRUCTIONS:	ANALYZE ALL ☐	STOP POSITIVE ☒	

	SAMPLE ID		SAMPLE ID
1	CNSY-759-06-01	16	
2	CNSY-759-06-02	17	
3	CNSY-759-06-03	18	
4	CNSY-760-07-01	19	
5	CNSY-760-07-02	20	
6	CNSY-760-07-03	21	
7 *	CNSY-763-02-01	22	
8 *	CNSY-763-02-02	23	
9 *	CNSY-763-02-03	24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	

SPECIAL INSTRUCTIONS:

RELINQUISHED BY:	[signature]	RECEIVED BY:	[signature]
DATE: 7/18/00	TIME: 0900	DATE: 7/18/00	TIME: 9.00
RELINQUISHED BY		RECEIVED BY:	
DATE	TIME:	DATE:	TIME:
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME:	DATE	TIME:

C. A. PAGE
ENVIRONMENTAL
MANAGEMENT
I N C

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0104
DATE RECEIVED: 5/17/00
DATE ANALYZED: 5/23/00

REPORT ISSUED: 6/1/00

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6752	CNSY-763-1-01	QUARTERS I	1 (of 1)	BROWN SOFT POWDERY TO GRANULAR SOIL WITH DEBRIS	TOTAL ASBESTOS <1%	**<1 CHRYSOTILE** **<1 AMOSITE**	5 CELLULOSE 2 GLASS FIBERS	75 AGGREGATES 1 MICA/ VERMICULITE 17 OTHER
6753	CNSY-763-1-02	QUARTERS I	1 (of 1)	BROWN SOFT POWDERY TO GRANULAR SOIL WITH DEBRIS			5 CELLULOSE 1 GLASS FIBERS	80 AGGREGATES 2 MICA/ VERMICULITE 1 SYNTH. FOAM 11 OTHER
6754	CNSY-763-1-03	QUARTERS I	1 (of 1)	BROWN SOFT POWDERY TO GRANULAR SOIL WITH DEBRIS		**<1 AMOSITE**	3 CELLULOSE 1 GLASS FIBERS	80 AGGREGATES 2 MICA/ VERMICULITE 14 OTHER
6755	CNSY-763-1-04	QUARTERS I	1 (of 1)	BROWN SOFT POWDERY TO GRANULAR SOIL WITH DEBRIS	TOTAL ASBESTOS <1%	**<1 CHRYSOTILE** **<1 AMOSITE**	5 CELLULOSE 1 GLASS FIBERS	80 AGGREGATES 2 MICA/ VERMICULITE 12 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S. EPA/600/R-93/116 METHOD OF JULY 1993
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/23/00

ANALYST
STEVE JARVIS

QUALITY CONTROL
ALEKSEY REZNIK

CAPE ENVIRONMENTAL MANAGEMENT INC

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0104
DATE RECEIVED: 5/17/00
DATE ANALYZED: 5/23/00

REPORT ISSUED: 6/1/00
PAGE: 9 of 9

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6756	CNSY-763-1-05	QUARTERS I	1 (of 1)	BROWN SOFT POWDERY TO GRANULAR SOIL WITH DEBRIS			3 CELLULOSE 1 GLASS FIBERS	80 AGGREGATES 2 MICA/ VERMICULITE 14 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S. EPA/600/R-93/116 METHOD OF JULY 1993
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/23/00

ANALYST
STEVE JARVIS

QUALITY CONTROL
ALEKSEY REZNIK

C A P E
ENVIRONMENTAL
MANAGEMENT
I N C

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345 TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0151
DATE RECEIVED: 7/18/00
DATE ANALYZED: 7/18/00

REPORT ISSUED: 7/19/00

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
9299	CNSY-763-02-01		1 (of 1)	GRAY AND WHITE SEMI-HARD RESILIENT WITH PAINT			1 CELLULOSE	99 OTHER
9300	CNSY-763-02-02		1 (of 1)	GRAY AND WHITE SEMI-HARD RESILIENT WITH PAINT			1 CELLULOSE 1 TALC	98 OTHER
9301	CNSY-763-02-03		1 (of 1)	GRAY AND WHITE SEMI-HARD RESILIENT WITH PAINT			1 CELLULOSE 1 TALC	98 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA/600/R-93/116 METHOD OF JULY 1993.
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 7/18/00

ANALYST
STEVE JARVIS

REVIEWER
ALEKSEY REZNIK

The Environmental Institute

David Bratley

Social Security Number - 594-44-4358

Has completed coursework and satisfactorily passed an examination that meets all criteria required for EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation and NESHAP Regulations Training

Asbestos in Buildings: Inspector Refresher

January 20, 2000
Course Date

6419
Certificate Number

January 20, 2000
Examination Date

January 19, 2001
Expiration Date

David W Hogue - Course Director

Rachel G McCain - Exam Administrator

TEI - 1300 Williams Drive, Suite E - Marietta, Georgia 30066 - (770) 427-3600

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. *22840*

This certifies that

W David Bratley

594-BCJ-4358

doing business as *Cape Environmental Management Inc*

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Consultant/Building Inspector

The holder of this license shall comply with all the requirements of said Regulation.

This License, License Number, or any Representation thereof, is not transferable to any other licensee or company. Use of this License is only authorized for the licensee and Company whose name appears hereon and shall expire one year from *01/20/00.*

04/24/00

Richard D. Sharpe

Richard D. Sharpe, Director
Air Compliance Management Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

04/24/00 09:44

Bureau of Air Quality

ORIGINAL

CR-001126

The Environmental Institute

Michael Black

Social Security Number - 228-11-6508

Has completed coursework and satisfactorily passed

an examination that meets all criteria required for

EPA/AHERA/ASHARA (TSCA Title II) Approved Accreditation

and NESHAP Regulations Training

Asbestos in Buildings: Inspection and Assessment

March 6-8, 2000
Course Date

2643
Certificate Number

March 8, 2000
Examination Date

March 7, 2001
Expiration Date

David W Hogue - Course Director

Rachel G McCain - Exam Administrator

TEI - 1300 Williams Drive, Suite E - Marietta, Georgia 30066 - (770) 427-3600

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. *23059*

This certifies that

Michael Black

228-BQ-6508

doing business as *Cape Environmental*

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Consultant/Building Inspector

The holder of this license shall comply with all the requirements of said Regulation.

This License, License Number, or any Representation thereof, is not transferable to any other licensee or company. Use of this License is only authorized for the licensee and Company whose name appears hereon and shall expire one year from *03/08/00.*

04/21/00

Richard D. Sharpe

Richard D Sharpe, Director
Air Compliance Management Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

04/21/00 16:19

Bureau of Air Quality

ORIGINAL

CR-001126

The Environmental Institute

Brian Downes

Social Security Number - 210-58-8395

Has completed coursework and satisfactorily passed an examination that meets all criteria required for EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation and NESHAP Regulations Training

Asbestos in Buildings: Inspector Refresher

June 23, 2000
Course Date

6624
Certificate Number

June 23, 2000
Examination Date

June 22, 2001
Expiration Date

David W. Hogue - Course Director

Rachel G. McCain - Exam Administrator

TEI - 1300 Williams Drive, Suite E - Marietta, Georgia 30066 - (770) 427-3600

Approved by the Illinois Department of Health

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. *22770*

This certifies that

Brian K Downes

210-BCJ-8395

doing business as *Cape Environmental Management*

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Consultant/Building Inspector

The holder of this license shall comply with all the requirements of said Regulation.

This License, License Number, or any Representation thereof, is not transferable to any other licensee or company. Use of this License is only authorized for the licensee and Company whose name appears hereon and shall expire one year from

05/19/99

04/24/00

Richard D. Sharpe

Richard D Sharpe, Director
Air Compliance Management Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

04/24/00 09 35

Bureau of Air Quality

ORIGINAL

CR-001126

National Institute of Standards and Technology

NVLAP®

National Voluntary Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Scope of Accreditation

BULK ASBESTOS FIBER ANALYSIS **NVLAP LAB CODE 102111-0**

CAPE ENVIRONMENTAL MANAGEMENT, INC.
2302 Parklake Drive, Suite 200
Atlanta, GA 30345-2907
Mr. Aleksey Reznik
Phone: 770-908-7200 Fax: 770-908-7219

NVLAP Code	*Designation*
18/A01	EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

June 30, 2001
Effective through

David F. Alderman
For the National Institute of Standards and Technology

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Certificate of Accreditation

DEPARTMENT OF COMMERCE ★ UNITED STATES OF AMERICA ★

CAPE ENVIRONMENTAL MANAGEMENT, INC.
ATLANTA, GA

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:

BULK ASBESTOS FIBER ANALYSIS

June 30, 2001
Effective through

David F. Alderman
For the National Institute of Standards and Technology

NVLAP Lab Code: 102111-0

NVLAP-01C (11-95)

National Institute of Standards and Technology

NVLAP®

National Voluntary Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Scope of Accreditation

BULK ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101235-0

MATERIALS ANALYTICAL SERVICES, INC.
3945 Lakefield Court
Suwanee, GA 30024
Dr. William E. Longo
Phone: 770-866-3200 Fax: 770-866-3259
E-Mail: blongo@mastest.com
URL: http://www.mastest.com

NVLAP Code	*Designation*
18/A01	U.S. EPA's "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" as found in 40 CFR, Part 763, Subpart F, App. A, or the current U.S. EPA method for the analysis of asbestos in building material.

June 30, 2000

Effective through

For the National Institute of Standards and Technology

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Certificate of Accreditation

MATERIALS ANALYTICAL SERVICES, INC.
SUWANEE, GA

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:

BULK ASBESTOS FIBER ANALYSIS

June 30, 2000
Effective through

For the National Institute of Standards and Technology

NVLAP Lab Code: 101235-0

NVLAP-01C (11-95)